



SEQUENCE LISTING

<110> Ruvkun, Gary  
Ogg, Scott

<120> THERAPEUTIC AND DIAGNOSTIC TOOLS FOR  
IMPAIRED GLUCOSE TOLERANCE CONDITIONS

<130> 00786/351004

<140> 09/205,658

<141> 1998-12-03

<150> 08/857,076

<151> 1997-05-15

<150> 08/888,534

<151> 1997-07-07

<150> US98/10080

<151> 1998-05-15

<160> 331

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer/probe derived from C. elegans

<400> 1

cgctacggca aaaaagtga

20

<210> 2

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer/probe derived from C. elegans

<400> 2

cgatgatgaa gatacccc

18

<210> 3

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer/probe derived from C. elegans

<400> 3  
 tgatgcgaac ggcatcgat 20  
  
 <210> 4  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Primer/probe derived from C. elegans  
  
 <400> 4  
 acgctggatc atctacatta 20  
  
 <210> 5  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Primer/probe derived from C. elegans  
  
 <400> 5  
 ggtttaatta cccaagtttg ag 22  
  
 <210> 6  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Primer/probe derived from C. elegans  
  
 <400> 6  
 gctcacgggt cacacaacga 20  
  
 <210> 7  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Primer/probe derived from C. elegans  
  
 <400> 7  
 tgatgcgaac ggcatcgat 20  
  
 <210> 8  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Primer/probe derived from C. elegans  
  
 <400> 8  
 tgagggccaa ctaaagaaga c 21  
  
 <210> 9

<211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer/probe derived from *C. elegans*

<400> 9  
 cgctacggca aaaaagtga 20

<210> 10  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Primer/probe derived from *C. elegans*

<400> 10  
 gacgatcccg aggtgagtat 20

<210> 11  
 <211> 5816  
 <212> DNA  
 <213> *Caenorhabditis elegans*

<220>  
 <221> misc\_feature  
 <222> (1)...(5816)  
 <223> n = A,T,C or G

<400> 11  
 ggtttaatta cccaagtttg agctccaaga gcacacatct gatcgtcgga ttctactgta 60  
 ctccccgaaa aaccaacaaa aaacacaagt ttttgaacac ttgtaaatgc agacagaacg 120  
 atgacgagaa tgaatattgt cagatgtcgg agacgacaca aaattttgga aaatttgga 180  
 gaagagaatc tcggcccgag ctgctcgtcg acgacttcaa caaccgctgc caccgaagct 240  
 ctcggaacaa ccactgagga tatgaggctt aagcagcagc gaagctcgtc gcgtgccacg 300  
 gagcacgata ttgtcgacgg caatcaccac gacgacgagc acatcacaat gagacggctt 360  
 cgacttgtca aaaattcgcg gacgcggcgt agaacgacgc ccgattcaag tatggactgc 420  
 tatgaggaaa acccgccatc acaaaaactt caataaatta ttcttggtatt tctaaaaagt 480  
 catcaatgac gtcattaatg cttttactgc tattcgtttt tgtacagccg tgtgcctcaa 540  
 tagtcgaaaa acgatgcggc ccaatcgata ttcgaaatag gccgtgggat attagccgcg 600  
 aatggtcgaa acttggtgat ccgaacgaaa aagattttggc tggtcagaga atggtcaact 660  
 gcacagtggg ggaaggttcg ctgacaatct catttgact gaaacacaag acaaaagcac 720  
 aagaagaaat gcatcgaagt ctacagccaa gatattccca agacgaattt atcacttttc 780  
 cgcactctac tgaaattact ggaactctgc tcgtttttga gactgaagga ttagtggtatt 840  
 tgcgtaaaat tttcccaaat cttcgtgtaa ttggaggccg ttcgctgatt caacactatg 900  
 cgctgataat ttatcgaaat ccggttttgg agatcggctt tgacaagctt tccgtaattc 960  
 gaaatggttg tgtaaggata atcgataatc gaaaactgtg ctacacgaaa acgattgatt 1020  
 ggaaacattt gatcacttct tccatcaacg atgttgtcgt tgataatgct gccgagtacg 1080  
 ctgtcactga gactggattg atgtgcccac gtggagcttg cgaagaggat aaaggcgaat 1140  
 caaagtgtca ttatttggag gaaaagaatc aggaacaagg tgtcgaaaga gttcagagtt 1200  
 gttggtcgaa caccacttgc caaaagtctt gtgcttatga tcgtcttctt ccaacgaaag 1260  
 aatcggaacc gggatgtgat gcgaacggcg atcgatgtca cgatcaatgc gtgggcgggtt 1320  
 gtgagcgtgt gaatgatgcc acagcatgcc acgcgtgcaa gaatgtctat cacaagggaa 1380  
 agtgtatcga aaagtgtgat gctcacctgt accttctcct tcaacgtcgt tgtgtgacct 1440  
 gtgagcagtg tctgcagctg aatccggtgc tctcgaacaa aacagtgctt atcaaggcga 1500  
 cggcaggcct ttgctcggat aaatgtcccg atggttatca aatcaaccgg gatgatcatc 1560  
 gagaatgccg aaaatgcgtt ggcaagtgtg agattgtgtg cgagatcaat cagtcattg 1620

atacgtttcc	gaaggcacag	gcatcaggc	tatgcaatat	tattgacgga	aatctgacga	1680
tcgagattcg	cggaaaacag	gattcgggaa	tggcgctccga	gttgaaggat	atatttgcgga	1740
acattcacac	gatcaccggc	tacctgttgg	tacgtcaatc	gtcaccggtt	atctcgttga	1800
acatgttccg	gaattttacga	cgtattgagg	caaagtcact	gttcagaaat	ctatatgcta	1860
tcacagtttt	tgaaaatccg	aattttaaaaa	agctattcga	ttcaacgacg	gatttgacgc	1920
ttgatcgtgg	aactgtgtca	attgccaaata	acaagatgtt	atgcttcaag	tatatcaagc	1980
agctaattgtc	aaagttaaata	ataccactcg	atccgataga	tcaatcagaa	gggacaaatg	2040
gtgagaagg	aatctgtgag	gatattggcaa	tcaacgtgag	catcacagcg	gtcaacgcgg	2100
actcggctctt	ctttagttgg	ccctcattca	acattaccga	tatagatcag	cgaaagtttc	2160
tcggctacga	gctcttcttc	aaagaagtcc	cacgaatcga	tgagaacatg	acgatcgaag	2220
aggatcgaag	tgcgtgtgtc	gattcgtggc	agagtgtctt	caaacagtac	tacgagacgt	2280
cgaacgggtga	accgaccccg	gacattttta	tggatattgg	accgcgcgag	cgaattcggc	2340
cgaatacgtc	ctacgcgtac	tatgtggcga	cgcagatggt	gttgcatgcc	ggtgcgaaga	2400
acggtgtatc	gaagattggt	tttgtgagga	cgagctacta	tacgcctgat	cctccgacgt	2460
tggcactagc	gcaagtgcgt	tcggacgcta	ttcatattac	gtgggaagcg	ccgctccaac	2520
cgaacgggaga	cctcacgcat	tacacaatta	tgtggcgtga	gaatgaagtg	agcccgtagc	2580
aggaagccga	aaagttttgt	acagatgcaa	gcaccccgcc	aaatcgacaa	cgcacgaaag	2640
atccgaaaga	gacgattgta	gccgataagc	cagtcgatata	tccgtcatca	cgtaccgtag	2700
ctccgacact	tttgactatg	atgggtcacg	aagatcagca	gaaaacgtgc	gctgcaacgc	2760
ccggttggtg	ttcgtgttcg	gctatcgaag	aatcatcggg	acagaacaag	aagaagcgac	2820
cggatccgat	gtcggcgatc	gaatcatctg	catttgagaa	taagctgttg	gatgaggttt	2880
taatgccgag	agacacgatg	cgagtgcgac	gatcaattga	agacgcgaat	cgagtcagtg	2940
aagagtgtga	aaaagctgaa	aattttgggaa	aagctccaaa	aactctcggt	ggaaagaagc	3000
cgctgatcca	tatttcgaag	aagaagccgt	cgagcagcag	caccacatcc	acaccggctc	3060
caacgatcgc	atcaatgtat	gccttaacaa	ggaaaccgac	tacggtgccg	ggaacaagga	3120
ttcggctcta	cgagatctac	gaacctttac	ccggaagctg	ggcgattaat	gtatcagctc	3180
tggcatattga	taatatgtat	gtgatacgaa	atttgaagca	ttacacactt	tatgcgattt	3240
ctctatccgc	gtgccaaaac	atgacagtac	ccggagcatc	ttgctcaata	tcccatcggt	3300
cgggagcatt	gaaacgaaca	aaacacatca	cagacattga	taaagtgttg	aatgaaacaa	3360
ttgaatggag	atttatgaat	aatagtcaac	aagtcaacgt	gacgtgggat	ccaccgactg	3420
aagtgaatgg	tggaaatattc	ggttatgttg	taaagcttaa	gtcaaaaagtc	gatggatcaa	3480
ttgttatgac	gagatgtgtc	ggtgcgaaga	gaggatattc	aacacgggaat	cagggtgtcc	3540
tattccagaa	tttggccgat	ggacgttatt	ttgtctcagt	aacggcgacc	tctgtacacg	3600
gcgctggacc	ggaagccgaa	tcctccgacc	caatgctcgt	catgacgcca	ggcttcttca	3660
ctgtggaaat	cattctcggc	atgcttctcg	tctttttgat	tttaatgtca	attgccgggt	3720
gtataatcta	ctactacatt	caagtacgct	acggcaaaaa	agtgaagct	ctatctgact	3780
ttatgcaatt	gaatcccga	tattgtgtgg	acaataagta	caatgcagac	gattgggagc	3840
tacggcagga	tgatgttgtg	ctcggacaac	agtgtggaga	gggatcattc	ggaaaagtgt	3900
acctaggaac	tggaaataat	gttgtttctc	tgatgggtga	tcgtttcgga	ccgtgtgcta	3960
ttaagattaa	tgtagatgat	ccagcgtcga	ctgagaatct	caactatctc	atggaagcta	4020
atattatgaa	gaactttaag	actaacttta	tcgtccaact	gtacggagtt	atctctactg	4080
tacaaccagc	gatggttgtg	atggaaatga	tgatctttgg	aaatctccgt	gactatctcc	4140
gatcgaaaacg	cgaagacgaa	gtgttcaatg	agacggactg	caactttttc	gacataatcc	4200
cgagggataa	attccatgag	tgggccgcac	agattttgtga	tggatatggc	tacctggagt	4260
cgctcaagtt	ttgccatcga	gatctcgccg	cacgtaattg	catgataaat	cgggatgaga	4320
ctgtcaagat	tggagatttc	ggaatggctc	gtgatctatt	ctatcatgac	tattataagc	4380
catcgggcaa	gcgtatgatg	cctgttcgat	ggatgtcacc	cgagtcggtg	aaagacggaa	4440
agtttgactc	gaaatctgat	gtttggagct	tcggagttgt	tctctatgaa	atggttacac	4500
tcggtgctca	gccatatatt	ggtttgagta	atgatgaggt	gttgaattat	attggaatgg	4560
cccggaaaggt	tatcaagaag	cccgaatgtt	gtgaaaacta	ttggtataag	gtgatgaaaa	4620
tgtgctggag	atactcacct	cgggatcgct	cgagcttctc	ccagctcggt	catcttctag	4680
cagctgaagc	ttcaccagaa	ttccgagatt	tatcattttgt	cctaaccgat	aatcaaatga	4740
tccttgacga	ttcagaagca	ctggatcttg	atgatattga	tgatactgat	atgaatgatc	4800
aggttgctga	ggtggcaccg	gatgttgaga	acgtcgaggt	tcagagtgat	tcggaacgct	4860
ggaatacggg	ttcaataaccg	ttgaaacagt	ttaagacgat	ccctccgatc	aatgcgacga	4920
cgagtcattc	gacaatatcg	attgatgaga	caccgatgaa	agcgaagcag	cgagaaggat	4980
cgctggatga	ggagtacgca	ttgatgaatc	atagtggagg	tccgagtgat	gcggaagtct	5040
ggacgtatgc	tggatgatga	gattatgtgg	agagagatgt	tcgagagaat	gatgtgccaa	5100
cgcgacgaaa	tactggtgca	tcaacatcaa	gttacacagc	tgggtgtcca	tattgcctaa	5160

caaatcgtgg	tggttcaaat	gaacgaggag	ccggtttcgg	tgaagcagta	cgattaactg	5220
atggtgttgg	aagtggacat	ttaaataatg	atgattatgt	tgaaaaagag	atatcatcca	5280
tggtatcgcg	ccggagcacg	ggcgctcga	gctcttccta	cggtgttcca	cagacgaatt	5340
ggagtggaaa	tcgtggtgcc	acgtattata	cgagtaaagc	tcaacaggca	gcaactgcag	5400
cagcagcagc	agcagcagct	ctccaacagc	aacaaaatgg	tggtcgaggc	gatcgattaa	5460
ctcaactacc	cggaactgga	catttacaat	cgacacgtgg	tggaacaagat	ggagattata	5520
ttgaaactga	accgaaaaat	tatagaaata	atggatctcc	atcgcgaaac	ggcaacagcc	5580
gtgacatttt	caacggacgt	tcggctttcg	gtgaaaatga	gcatactaac	gaggataatg	5640
agcatcatcc	acttgtctga	aacccccaaa	aaatcccggc	tcttaaatta	taaattatct	5700
cccacattat	catatctcta	cacgaatatc	ggattttttt	tcagattttt	tctgaaaaat	5760
tctgaataat	tttaccat	ttttcaaata	tctgtatttt	ttttgttat	tacccc	5816

<210> 12  
 <211> 1724  
 <212> PRT  
 <213> *Caenorhabditis elegans*

<400> 12

Met	Thr	Ser	Leu	Met	Leu	Leu	Leu	Leu	Phe	Ala	Phe	Val	Gln	Pro	Cys
1				5					10					15	
Ala	Ser	Ile	Val	Glu	Lys	Arg	Cys	Gly	Pro	Ile	Asp	Ile	Arg	Asn	Arg
			20					25					30		
Pro	Trp	Asp	Ile	Lys	Pro	Gln	Trp	Ser	Lys	Leu	Gly	Asp	Pro	Asn	Glu
		35					40					45			
Lys	Asp	Leu	Ala	Gly	Gln	Arg	Met	Val	Asn	Cys	Thr	Val	Val	Glu	Gly
	50					55					60				
Ser	Leu	Thr	Ile	Ser	Phe	Val	Leu	Lys	His	Lys	Thr	Lys	Ala	Gln	Glu
65					70					75					80
Glu	Met	His	Arg	Ser	Leu	Gln	Pro	Arg	Tyr	Ser	Gln	Asp	Glu	Phe	Ile
				85					90					95	
Thr	Phe	Pro	His	Leu	Arg	Glu	Ile	Thr	Gly	Thr	Leu	Leu	Val	Phe	Glu
			100						105					110	
Thr	Glu	Gly	Leu	Val	Asp	Leu	Arg	Lys	Ile	Phe	Pro	Asn	Leu	Arg	Val
		115					120					125			
Ile	Gly	Gly	Arg	Ser	Leu	Ile	Gln	His	Tyr	Ala	Leu	Ile	Ile	Tyr	Arg
	130					135					140				
Asn	Pro	Asp	Leu	Glu	Ile	Gly	Leu	Asp	Lys	Leu	Ser	Val	Ile	Arg	Asn
145					150					155					160
Gly	Gly	Val	Arg	Ile	Ile	Asp	Asn	Arg	Lys	Leu	Cys	Tyr	Thr	Lys	Thr
				165					170					175	
Ile	Asp	Trp	Lys	His	Leu	Ile	Thr	Ser	Ser	Ile	Asn	Asp	Val	Val	Val
			180					185					190		
Asp	Asn	Ala	Ala	Glu	Tyr	Ala	Val	Thr	Glu	Thr	Gly	Leu	Met	Cys	Pro
		195					200					205			
Arg	Gly	Ala	Cys	Glu	Glu	Asp	Lys	Gly	Glu	Ser	Lys	Cys	His	Tyr	Leu
	210					215					220				
Glu	Glu	Lys	Asn	Gln	Glu	Gln	Gly	Val	Glu	Arg	Val	Gln	Ser	Cys	Trp
225					230					235					240
Ser	Asn	Thr	Thr	Cys	Gln	Lys	Ser	Cys	Ala	Tyr	Asp	Arg	Leu	Leu	Pro
				245					250					255	
Thr	Lys	Glu	Ile	Gly	Pro	Gly	Cys	Asp	Ala	Asn	Gly	Asp	Arg	Cys	His
			260					265					270		
Asp	Gln	Cys	Val	Gly	Gly	Cys	Glu	Arg	Val	Asn	Asp	Ala	Thr	Ala	Cys
		275					280					285			
His	Ala	Cys	Lys	Asn	Val	Tyr	His	Lys	Gly	Lys	Cys	Ile	Glu	Lys	Cys
	290					295					300				
Asp	Ala	His	Leu	Tyr	Leu	Leu	Leu	Gln	Arg	Arg	Cys	Val	Thr	Arg	Glu

305					310					315					320
Gln	Cys	Leu	Gln	Leu	Asn	Pro	Val	Leu	Ser	Asn	Lys	Thr	Val	Pro	Ile
				325					330					335	
Lys	Ala	Thr	Ala	Gly	Leu	Cys	Ser	Asp	Lys	Cys	Pro	Asp	Gly	Tyr	Gln
			340					345					350		
Ile	Asn	Pro	Asp	Asp	His	Arg	Glu	Cys	Arg	Lys	Cys	Val	Gly	Lys	Cys
		355					360					365			
Glu	Ile	Val	Cys	Glu	Ile	Asn	His	Val	Ile	Asp	Thr	Phe	Pro	Lys	Ala
	370					375					380				
Gln	Ala	Ile	Arg	Leu	Cys	Asn	Ile	Ile	Asp	Gly	Asn	Leu	Thr	Ile	Glu
385					390					395					400
Ile	Arg	Gly	Lys	Gln	Asp	Ser	Gly	Met	Ala	Ser	Glu	Leu	Lys	Asp	Ile
				405					410					415	
Phe	Ala	Asn	Ile	His	Thr	Ile	Thr	Gly	Tyr	Leu	Leu	Val	Arg	Gln	Ser
			420					425					430		
Ser	Pro	Phe	Ile	Ser	Leu	Asn	Met	Phe	Arg	Asn	Leu	Arg	Arg	Ile	Glu
		435					440					445			
Ala	Lys	Ser	Leu	Phe	Arg	Asn	Leu	Tyr	Ala	Ile	Thr	Val	Phe	Glu	Asn
	450					455					460				
Pro	Asn	Leu	Lys	Lys	Leu	Phe	Asp	Ser	Thr	Thr	Asp	Leu	Thr	Leu	Asp
465					470					475					480
Arg	Gly	Thr	Val	Ser	Ile	Ala	Asn	Asn	Lys	Met	Leu	Cys	Phe	Lys	Tyr
				485					490					495	
Ile	Lys	Gln	Leu	Met	Ser	Lys	Leu	Asn	Ile	Pro	Leu	Asp	Pro	Ile	Asp
		500						505					510		
Gln	Ser	Glu	Gly	Thr	Asn	Gly	Glu	Lys	Ala	Ile	Cys	Glu	Asp	Met	Ala
		515					520					525			
Ile	Asn	Val	Ser	Ile	Thr	Ala	Val	Asn	Ala	Asp	Ser	Val	Phe	Phe	Ser
	530					535					540				
Trp	Pro	Ser	Phe	Asn	Ile	Thr	Asp	Ile	Asp	Gln	Arg	Lys	Phe	Leu	Gly
545				550						555					560
Tyr	Glu	Leu	Phe	Phe	Lys	Glu	Val	Pro	Arg	Ile	Asp	Glu	Asn	Met	Thr
				565					570					575	
Ile	Glu	Glu	Asp	Arg	Ser	Ala	Cys	Val	Asp	Ser	Trp	Gln	Ser	Val	Phe
			580					585					590		
Lys	Gln	Tyr	Tyr	Glu	Thr	Ser	Asn	Gly	Glu	Pro	Thr	Pro	Asp	Ile	Phe
		595					600					605			
Met	Asp	Ile	Gly	Pro	Arg	Glu	Arg	Ile	Arg	Pro	Asn	Thr	Leu	Tyr	Ala
	610					615					620				
Tyr	Tyr	Val	Ala	Thr	Gln	Met	Val	Leu	His	Ala	Gly	Ala	Lys	Asn	Gly
625					630					635					640
Val	Ser	Lys	Ile	Gly	Phe	Val	Arg	Thr	Ser	Tyr	Tyr	Thr	Pro	Asp	Pro
				645					650					655	
Pro	Thr	Leu	Ala	Leu	Ala	Gln	Val	Asp	Ser	Asp	Ala	Ile	His	Ile	Thr
			660					665					670		
Trp	Glu	Ala	Pro	Leu	Gln	Pro	Asn	Gly	Asp	Leu	Thr	His	Tyr	Thr	Ile
		675					680					685			
Met	Trp	Arg	Glu	Asn	Glu	Val	Ser	Pro	Tyr	Glu	Glu	Ala	Glu	Lys	Phe
	690					695					700				
Cys	Thr	Asp	Ala	Ser	Thr	Pro	Ala	Asn	Arg	Gln	Arg	Thr	Lys	Asp	Pro
705					710					715					720
Lys	Glu	Thr	Ile	Val	Ala	Asp	Lys	Pro	Val	Asp	Ile	Pro	Ser	Ser	Arg
				725					730					735	
Thr	Val	Ala	Pro	Thr	Leu	Leu	Thr	Met	Met	Gly	His	Glu	Asp	Gln	Gln
			740					745					750		
Lys	Thr	Cys	Ala	Ala	Thr	Pro	Gly	Cys	Cys	Ser	Cys	Ser	Ala	Ile	Glu
		755					760					765			
Glu	Ser	Ser	Glu	Gln	Asn	Lys	Lys	Lys	Arg	Pro	Asp	Pro	Met	Ser	Ala
	770					775					780				

Ile	Glu	Ser	Ser	Ala	Phe	Glu	Asn	Lys	Leu	Leu	Asp	Glu	Val	Leu	Met	785	790	795	800
Pro	Arg	Asp	Thr	Met	Arg	Val	Arg	Arg	Ser	Ile	Glu	Asp	Ala	Asn	Arg	805	810	815	
Val	Ser	Glu	Glu	Leu	Glu	Lys	Ala	Glu	Asn	Leu	Gly	Lys	Ala	Pro	Lys	820	825	830	
Thr	Leu	Gly	Gly	Lys	Lys	Pro	Leu	Ile	His	Ile	Ser	Lys	Lys	Lys	Pro	835	840	845	
Ser	Ser	Ser	Ser	Thr	Thr	Ser	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Met	850	855	860	
Tyr	Ala	Leu	Thr	Arg	Lys	Pro	Thr	Thr	Val	Pro	Gly	Thr	Arg	Ile	Arg	865	870	875	880
Leu	Tyr	Glu	Ile	Tyr	Glu	Pro	Leu	Pro	Gly	Ser	Trp	Ala	Ile	Asn	Val	885	890	895	
Ser	Ala	Leu	Ala	Leu	Asp	Asn	Ser	Tyr	Val	Ile	Arg	Asn	Leu	Lys	His	900	905	910	
Tyr	Thr	Leu	Tyr	Ala	Ile	Ser	Leu	Ser	Ala	Cys	Gln	Asn	Met	Thr	Val	915	920	925	
Pro	Gly	Ala	Ser	Cys	Ser	Ile	Ser	His	Arg	Ala	Gly	Ala	Leu	Lys	Arg	930	935	940	
Thr	Lys	His	Ile	Thr	Asp	Ile	Asp	Lys	Val	Leu	Asn	Glu	Thr	Ile	Glu	945	950	955	960
Trp	Arg	Phe	Met	Asn	Asn	Ser	Gln	Gln	Val	Asn	Val	Thr	Trp	Asp	Pro	965	970	975	
Pro	Thr	Glu	Val	Asn	Gly	Gly	Ile	Phe	Gly	Tyr	Val	Val	Lys	Leu	Lys	980	985	990	
Ser	Lys	Val	Asp	Gly	Ser	Ile	Val	Met	Thr	Arg	Cys	Val	Gly	Ala	Lys	995	1000	1005	
Arg	Gly	Tyr	Ser	Thr	Arg	Asn	Gln	Gly	Val	Leu	Phe	Gln	Asn	Leu	Ala	1010	1015	1020	
Asp	Gly	Arg	Tyr	Phe	Val	Ser	Val	Thr	Ala	Thr	Ser	Val	His	Gly	Ala	1025	1030	1035	104
Gly	Pro	Glu	Ala	Glu	Ser	Ser	Asp	Pro	Ile	Val	Val	Met	Thr	Pro	Gly	1045	1050	1055	
Phe	Phe	Thr	Val	Glu	Ile	Ile	Leu	Gly	Met	Leu	Leu	Val	Phe	Leu	Ile	1060	1065	1070	
Leu	Met	Ser	Ile	Ala	Gly	Cys	Ile	Ile	Tyr	Tyr	Tyr	Ile	Gln	Val	Arg	1075	1080	1085	
Tyr	Gly	Lys	Lys	Val	Lys	Ala	Leu	Ser	Asp	Phe	Met	Gln	Leu	Asn	Pro	1090	1095	1100	
Glu	Tyr	Cys	Val	Asp	Asn	Lys	Tyr	Asn	Ala	Asp	Asp	Trp	Glu	Leu	Arg	1105	1110	1115	112
Gln	Asp	Asp	Val	Val	Leu	Gly	Gln	Gln	Cys	Gly	Glu	Gly	Ser	Phe	Gly	1125	1130	1135	
Lys	Val	Tyr	Leu	Gly	Thr	Gly	Asn	Asn	Val	Val	Ser	Leu	Met	Gly	Asp	1140	1145	1150	
Arg	Phe	Gly	Pro	Cys	Ala	Ile	Lys	Ile	Asn	Val	Asp	Asp	Pro	Ala	Ser	1155	1160	1165	
Thr	Glu	Asn	Leu	Asn	Tyr	Leu	Met	Glu	Ala	Asn	Ile	Met	Lys	Asn	Phe	1170	1175	1180	
Lys	Thr	Asn	Phe	Ile	Val	Gln	Leu	Tyr	Gly	Val	Ile	Ser	Thr	Val	Gln	1185	1190	1195	120
Pro	Ala	Met	Val	Val	Met	Glu	Met	Met	Asp	Leu	Gly	Asn	Leu	Arg	Asp	1205	1210	1215	
Tyr	Leu	Arg	Ser	Lys	Arg	Glu	Asp	Glu	Val	Phe	Asn	Glu	Thr	Asp	Cys	1220	1225	1230	
Asn	Phe	Phe	Asp	Ile	Ile	Pro	Arg	Asp	Lys	Phe	His	Glu	Trp	Ala	Ala	1235	1240	1245	
Gln	Ile	Cys	Asp	Gly	Met	Ala	Tyr	Leu	Glu	Ser	Leu	Lys	Phe	Cys	His				

1250	1255	1260
Arg Asp Leu Ala Ala	Arg Asn Cys Met Ile Asn Arg Asp Glu Thr Val	
1265	1270	1275
Lys Ile Gly Asp Phe Gly Met Ala Arg Asp Leu Phe Tyr His Asp Tyr		128
	1285	1290
		1295
Tyr Lys Pro Ser Gly Lys Arg Met Met Pro Val Arg Trp Met Ser Pro		
	1300	1305
		1310
Glu Ser Leu Lys Asp Gly Lys Phe Asp Ser Lys Ser Asp Val Trp Ser		
	1315	1320
		1325
Phe Gly Val Val Leu Tyr Glu Met Val Thr Leu Gly Ala Gln Pro Tyr		
	1330	1335
		1340
Ile Gly Leu Ser Asn Asp Glu Val Leu Asn Tyr Ile Gly Met Ala Arg		
1345	1350	1355
Lys Val Ile Lys Lys Pro Glu Cys Cys Glu Asn Tyr Trp Tyr Lys Val		
	1365	1370
		1375
Met Lys Met Cys Trp Arg Tyr Ser Pro Arg Asp Arg Pro Thr Phe Leu		
	1380	1385
		1390
Gln Leu Val His Leu Leu Ala Ala Glu Ala Ser Pro Glu Phe Arg Asp		
	1395	1400
		1405
Leu Ser Phe Val Leu Thr Asp Asn Gln Met Ile Leu Asp Asp Ser Glu		
	1410	1415
		1420
Ala Leu Asp Leu Asp Asp Ile Asp Asp Thr Asp Met Asn Asp Gln Val		
1425	1430	1435
Val Glu Val Ala Pro Asp Val Glu Asn Val Glu Val Gln Ser Asp Ser		
	1445	1450
		1455
Glu Arg Arg Asn Thr Asp Ser Ile Pro Leu Lys Gln Phe Lys Thr Ile		
	1460	1465
		1470
Pro Pro Ile Asn Ala Thr Thr Ser His Ser Thr Ile Ser Ile Asp Glu		
	1475	1480
		1485
Thr Pro Met Lys Ala Lys Gln Arg Glu Gly Ser Leu Asp Glu Glu Tyr		
	1490	1495
		1500
Ala Leu Met Asn His Ser Gly Gly Pro Ser Asp Ala Glu Val Arg Thr		
1505	1510	1515
Tyr Ala Gly Asp Gly Asp Tyr Val Glu Arg Asp Val Arg Glu Asn Asp		
	1525	1530
		1535
Val Pro Thr Arg Arg Asn Thr Gly Ala Ser Thr Ser Ser Tyr Thr Gly		
	1540	1545
		1550
Gly Gly Pro Tyr Cys Leu Thr Asn Arg Gly Gly Ser Asn Glu Arg Gly		
	1555	1560
		1565
Ala Gly Phe Gly Glu Ala Val Arg Leu Thr Asp Gly Val Gly Ser Gly		
	1570	1575
		1580
His Leu Asn Asp Asp Asp Tyr Val Glu Lys Glu Ile Ser Ser Met Asp		
1585	1590	1595
Thr Arg Arg Ser Thr Gly Ala Ser Ser Ser Ser Tyr Gly Val Pro Gln		
	1605	1610
		1615
Thr Asn Trp Ser Gly Asn Arg Gly Ala Thr Tyr Tyr Thr Ser Lys Ala		
	1620	1625
		1630
Gln Gln Ala Ala Thr Ala Ala Ala Ala Ala Ala Ala Leu Gln Gln		
	1635	1640
		1645
Gln Gln Asn Gly Gly Arg Gly Asp Arg Leu Thr Gln Leu Pro Gly Thr		
	1650	1655
		1660
Gly His Leu Gln Ser Thr Arg Gly Gly Gln Asp Gly Asp Tyr Ile Glu		
1665	1670	1675
Thr Glu Pro Lys Asn Tyr Arg Asn Asn Gly Ser Pro Ser Arg Asn Gly		
	1685	1690
		1695
Asn Ser Arg Asp Ile Phe Asn Gly Arg Ser Ala Phe Gly Glu Asn Glu		
	1700	1705
		1710
His Leu Ile Glu Asp Asn Glu His His Pro Leu Val		
	1715	1720



<210> 13  
 <211> 139  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 13  
 Thr Ser Gly Ser Gly Met Gly Pro Thr Thr Leu His Lys Leu Thr Ile  
 1 5 10 15  
 Gly Gly Gln Ile Arg Leu Thr Gly Arg Val Gly Ser Gly Arg Phe Gly  
 20 25 30  
 Asn Val Ser Arg Gly Asp Tyr Arg Gly Glu Ala Val Ala Val Lys Val  
 35 40 45  
 Phe Asn Ala Leu Asp Glu Pro Ala Phe His Lys Glu Thr Glu Ile Phe  
 50 55 60  
 Glu Thr Arg Met Leu Arg His Pro Asn Val Leu Arg Tyr Ile Gly Ser  
 65 70 75 80  
 Asp Arg Val Asp Thr Gly Phe Val Thr Glu Leu Trp Leu Val Thr Glu  
 85 90 95  
 Tyr His Pro Ser Gly Ser Leu His Asp Phe Leu Leu Glu Asn Thr Val  
 100 105 110  
 Asn Ile Glu Thr Tyr Tyr Asn Leu Met Arg Ser Thr Ala Ser Gly Leu  
 115 120 125  
 Ala Phe Leu His Asn Gln Ile Gly Gly Ser Lys  
 130 135

<210> 14  
 <211> 62  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 14  
 Glu Asp Ala Ala Ser Asp Ile Ile Ala Asn Glu Asn Tyr Lys Cys Gly  
 1 5 10 15  
 Thr Val Arg Tyr Leu Ala Pro Glu Ile Leu Asn Ser Thr Met Gln Phe  
 20 25 30  
 Thr Val Phe Glu Ser Tyr Gln Cys Ala Asp Val Tyr Ser Phe Ser Leu  
 35 40 45  
 Val Met Trp Glu Thr Leu Cys Arg Cys Glu Asp Gly Asp Val  
 50 55 60

<210> 15  
 <211> 31  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 15  
 Lys Pro Ala Met Ala His Arg Asp Ile Lys Ser Lys Asn Ile Met Val  
 1 5 10 15  
 Lys Asn Asp Leu Thr Cys Ala Ile Gly Asp Leu Gly Leu Ser Leu  
 20 25 30

<210> 16  
 <211> 72  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 16  
 Ile Pro Tyr Ile Glu Trp Thr Asp Arg Asp Pro Gln Asp Ala Gln Met  
 1 5 10 15  
 Phe Asp Val Val Cys Thr Arg Arg Leu Arg Pro Thr Glu Asn Pro Leu  
 20 25 30  
 Trp Lys Asp His Pro Glu Met Lys His Ile Met Glu Ile Ile Lys Thr  
 35 40 45  
 Cys Trp Asn Gly Asn Pro Ser Ala Arg Phe Thr Ser Tyr Ile Cys Arg  
 50 55 60  
 Lys Arg Met Asp Glu Arg Gln Gln  
 65 70

<210> 17  
 <211> 150  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 17  
 Tyr Phe Glu Ser Val Asp Arg Phe Leu Tyr Ser Cys Val Gly Tyr Ser  
 1 5 10 15  
 Val Ala Thr Tyr Ile Met Gly Ile Lys Asp Arg His Ser Asp Asn Leu  
 20 25 30  
 Met Leu Thr Glu Asp Gly Lys Tyr Val His Ile Asp Phe Gly His Ile  
 35 40 45  
 Leu Gly His Gly Lys Thr Lys Leu Gly Ile Gln Arg Asp Arg Gln Pro  
 50 55 60  
 Phe Ile Leu Thr Glu His Phe Met Thr Val Ile Arg Ser Gly Lys Ser  
 65 70 75 80  
 Val Asp Gly Asn Ser His Glu Leu Gln Lys Phe Lys Thr Leu Cys Val  
 85 90 95  
 Glu Ala Tyr Glu Val Met Trp Asn Asn Arg Asp Leu Phe Val Ser Leu  
 100 105 110  
 Phe Thr Leu Met Leu Gly Met Glu Leu Pro Glu Leu Ser Thr Lys Ala  
 115 120 125  
 Asp Leu Asp His Leu Lys Lys Thr Leu Phe Cys Asn Gly Glu Ser Lys  
 130 135 140  
 Glu Glu Ala Arg Lys Phe  
 145 150

<210> 18  
 <211> 113  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 18  
 Ser Pro Leu Asp Pro Val Tyr Lys Leu Gly Glu Met Ile Ile Asp Lys  
 1 5 10 15  
 Ala Ile Val Leu Gly Ser Ala Lys Arg Pro Leu Met Leu His Trp Lys  
 20 25 30  
 Asn Lys Asn Pro Lys Ser Asp Leu His Leu Pro Phe Cys Ala Met Ile  
 35 40 45  
 Phe Lys Asn Gly Asp Asp Leu Arg Gln Asp Met Leu Val Leu Gln Val  
 50 55 60  
 Leu Glu Val Met Asp Asn Ile Trp Lys Ala Ala Asn Ile Asp Cys Cys  
 65 70 75 80  
 Leu Asn Pro Tyr Ala Val Leu Pro Met Gly Glu Met Ile Gly Ile Ile  
 85 90 95

Glu Val Val Pro Asn Cys Lys Thr Ile Phe Glu Ile Gln Val Gly Thr  
 100 105 110  
 Gly

<210> 19  
 <211> 106  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 19  
 Leu Ala Phe Val Trp Thr Asp Arg Glu Asn Phe Ser Glu Leu Tyr Val  
 1 5 10 15  
 Met Leu Glu Lys Trp Lys Pro Pro Ser Val Ala Ala Ala Leu Thr Leu  
 20 25 30  
 Leu Gly Lys Arg Cys Thr Asp Arg Val Ile Arg Lys Phe Ala Val Glu  
 35 40 45  
 Lys Leu Asn Glu Gln Leu Ser Pro Val Thr Phe His Leu Phe Ile Leu  
 50 55 60  
 Pro Leu Ile Gln Ala Leu Lys Tyr Glu Pro Arg Ala Gln Ser Glu Val  
 65 70 75 80  
 Gly Met Met Leu Leu Thr Arg Ala Leu Cys Asp Tyr Arg Ile Gly His  
 85 90 95  
 Arg Leu Phe Trp Leu Leu Arg Ala Glu Ile  
 100 105

<210> 20  
 <211> 139  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 20  
 Glu Tyr Trp Ile Val Thr Glu Phe His Glu Arg Leu Ser Leu Tyr Glu  
 1 5 10 15  
 Leu Leu Lys Asn Asn Val Ile Ser Ile Thr Ser Ala Asn Arg Ile Ile  
 20 25 30  
 Met Ser Met Ile Asp Gly Leu Gln Phe Leu His Asp Asp Arg Pro Tyr  
 35 40 45  
 Phe Phe Gly His Pro Lys Lys Pro Ile Ile His Arg Asp Ile Lys Ser  
 50 55 60  
 Lys Asn Ile Leu Val Lys Ser Asp Met Thr Thr Cys Ile Ala Asp Phe  
 65 70 75 80  
 Gly Leu Ala Arg Ile Tyr Ser Tyr Asp Ile Glu Gln Ser Asp Leu Leu  
 85 90 95  
 Gly Gln Val Gly Thr Lys Arg Tyr Met Ser Pro Glu Met Leu Glu Gly  
 100 105 110  
 Ala Thr Glu Phe Thr Pro Thr Ala Phe Lys Ala Met Asp Val Tyr Ser  
 115 120 125  
 Met Gly Leu Val Met Trp Glu Val Ile Ser Arg  
 130 135

<210> 21  
 <211> 61  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 21  
 Ile Gly Phe Asp Pro Thr Ile Gly Arg Met Arg Asn Tyr Val Val Ser  
 1 5 10 15  
 Lys Lys Glu Arg Pro Gln Trp Arg Asp Glu Ile Ile Lys His Glu Tyr  
 20 25 30  
 Met Ser Leu Leu Lys Lys Val Thr Glu Glu Met Trp Asp Pro Glu Ala  
 35 40 45  
 Cys Ala Arg Ile Thr Ala Gly Cys Ala Phe Ala Arg Val  
 50 55 60

<210> 22  
 <211> 20  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 22  
 Pro Ile Thr Asp Phe Gln Leu Ile Ser Lys Gly Arg Phe Gly Lys Val  
 1 5 10 15  
 Phe Lys Ala Gln  
 20

<210> 23  
 <211> 163  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 23  
 Thr Asp Ser Glu Thr Arg Ser Arg Phe Ser Leu Gly Trp Tyr Asn Asn  
 1 5 10 15  
 Pro Asn Arg Ser Pro Gln Thr Ala Glu Val Arg Gly Leu Ile Gly Lys  
 20 25 30  
 Gly Val Arg Phe Tyr Leu Leu Ala Gly Glu Val Tyr Val Glu Asn Leu  
 35 40 45  
 Cys Asn Ile Pro Val Phe Val Gln Ser Ile Gly Ala Asn Met Lys Asn  
 50 55 60  
 Gly Phe Gln Leu Asn Thr Val Ser Lys Leu Pro Pro Thr Gly Thr Met  
 65 70 75 80  
 Lys Val Phe Asp Met Arg Leu Phe Ser Lys Gln Leu Arg Thr Ala Ala  
 85 90 95  
 Glu Lys Thr Tyr Gln Asp Val Tyr Cys Leu Ser Arg Met Cys Thr Val  
 100 105 110  
 Arg Val Ser Phe Cys Lys Gly Trp Gly Glu His Tyr Arg Arg Ser Thr  
 115 120 125  
 Val Leu Arg Ser Pro Val Trp Phe Gln Ala His Leu Asn Asn Pro Met  
 130 135 140  
 His Trp Val Asp Ser Val Leu Thr Cys Met Gly Ala Pro Pro Arg Ile  
 145 150 155 160  
 Cys Ser Ser

<210> 24  
 <211> 44  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 24

Arg Ala Phe Arg Phe Pro Val Ile Arg Tyr Glu Ser Gln Val Lys Ser  
 1 5 10 15  
 Ile Leu Thr Cys Arg His Ala Phe Asn Ser His Ser Arg Asn Val Cys  
 20 25 30  
 Leu Asn Pro Tyr His Tyr Arg Trp Val Glu Leu Pro  
 35 40

<210> 25  
 <211> 38  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 25  
 Val Glu Tyr Glu Glu Ser Pro Ser Trp Leu Lys Leu Ile Tyr Tyr Glu  
 1 5 10 15  
 Glu Gly Thr Met Ile Gly Glu Lys Ala Asp Val Glu Gly His His Cys  
 20 25 30  
 Leu Ile Asp Gly Phe Thr  
 35

<210> 26  
 <211> 60  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 26  
 Asn Leu Ala Glu Thr Gly His Ser Lys Ile Met Arg Ala Ala His Lys  
 1 5 10 15  
 Val Ser Asn Pro Glu Ile Gly Tyr Cys Cys His Pro Thr Glu Tyr Asp  
 20 25 30  
 Tyr Ile Lys Leu Ile Tyr Val Asn Arg Asp Gly Arg Val Ser Ile Ala  
 35 40 45  
 Asn Val Asn Gly Met Ile Ala Lys Lys Cys Gly Cys  
 50 55 60

<210> 27  
 <211> 20  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 27  
 Asp Trp Ile Val Ala Pro Pro Arg Tyr Asn Ala Tyr Met Cys Arg Gly  
 1 5 10 15  
 Asp Cys His Tyr  
 20

<210> 28  
 <211> 43  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 28  
 Val Cys Asn Ala Glu Ala Gln Ser Lys Gly Cys Cys Leu Tyr Asp Leu  
 1 5 10 15  
 Glu Ile Glu Phe Glu Lys Ile Gly Trp Asp Trp Ile Val Ala Pro Pro



<221> misc\_feature  
 <222> (1)...(18)  
 <223> n = A,T,C or G

<400> 32  
 tgytgynnnnc cnaengar

18

<210> 33  
 <211> 127  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 33  
 Lys Phe His Glu Trp Ala Ala Gln Ile Cys Asp Gly Met Ala Tyr Leu  
 1 5 10 15  
 Glu Ser Leu Lys Phe Cys His Arg Asp Leu Ala Ala Arg Asn Cys Met  
 20 25 30  
 Ile Asn Arg Asp Glu Thr Val Lys Ile Gly Asp Phe Gly Met Ala Arg  
 35 40 45  
 Asp Leu Phe Tyr His Asp Tyr Tyr Lys Pro Ser Gly Lys Arg Met Met  
 50 55 60  
 Pro Val Arg Trp Met Ser Pro Glu Ser Leu Lys Asp Gly Lys Phe Asp  
 65 70 75 80  
 Ser Lys Ser Asp Val Trp Ser Phe Gly Val Val Leu Tyr Glu Met Val  
 85 90 95  
 Thr Leu Gly Ala Gln Pro Tyr Ile Gly Leu Ser Asn Asp Glu Val Leu  
 100 105 110  
 Asn Tyr Ile Gly Met Ala Arg Lys Val Ile Lys Lys Pro Glu Cys  
 115 120 125

<210> 34  
 <211> 131  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 34  
 Asn Thr Thr Cys Gln Lys Ser Cys Ala Tyr Asp Arg Leu Leu Pro Thr  
 1 5 10 15  
 Lys Glu Ile Gly Pro Gly Cys Asp Ala Asn Gly Asp Arg Cys His Asp  
 20 25 30  
 Gln Cys Val Gly Gly Cys Glu Arg Val Asn Asp Ala Thr Ala Cys His  
 35 40 45  
 Ala Cys Lys Asn Val Tyr His Lys Gly Lys Cys Ile Glu Lys Cys Asp  
 50 55 60  
 Ala His Leu Tyr Leu Leu Leu Gln Arg Arg Cys Val Thr Arg Glu Gln  
 65 70 75 80  
 Cys Leu Gln Leu Asn Pro Val Leu Ser Asn Lys Thr Val Pro Ile Lys  
 85 90 95  
 Ala Thr Ala Gly Leu Cys Ser Asp Lys Cys Pro Asp Gly Tyr Gln Ile  
 100 105 110  
 Asn Pro Asp Asp His Arg Glu Cys Arg Lys Cys Val Gly Lys Cys Glu  
 115 120 125  
 Ile Val Cys  
 130

<210> 35  
 <211> 103

<212> PRT  
 <213> Caenorhabditis elegans

<400> 35  
 Phe Asp Gln Lys Ala Cys Glu Ser Leu Val Lys Lys Leu Lys Asp Lys  
 1 5 10 15  
 Lys Asn Asp Leu Gln Asn Leu Ile Asp Val Val Leu Ser Lys Gly Thr  
 20 25 30  
 Lys Tyr Thr Gly Cys Ile Thr Ile Pro Arg Thr Leu Asp Gly Arg Leu  
 35 40 45  
 Gln Val His Gly Arg Lys Gly Phe Pro His Val Val Tyr Gly Lys Leu  
 50 55 60  
 Trp Arg Phe Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His  
 65 70 75 80  
 Cys Lys His Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro  
 85 90 95  
 Tyr His Tyr Glu Ile Val Ile  
 100

<210> 36  
 <211> 79  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 36  
 Asn Arg Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro Val  
 1 5 10 15  
 Ala Phe Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser Tyr  
 20 25 30  
 Lys Lys Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro Val  
 35 40 45  
 Phe Val Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys Lys  
 50 55 60  
 Asp Lys Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe  
 65 70 75

<210> 37  
 <211> 106  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 37  
 Lys Lys Thr Thr Thr Arg Arg Asn Ala Trp Gly Asn Met Ser Tyr Ala  
 1 5 10 15  
 Glu Leu Ile Thr Thr Ala Ile Met Ala Ser Pro Glu Lys Arg Leu Thr  
 20 25 30  
 Leu Ala Gln Val Tyr Glu Trp Met Val Gln Asn Val Pro Tyr Phe Arg  
 35 40 45  
 Asp Lys Gly Asp Ser Asn Ser Ser Ala Gly Trp Lys Asn Ser Ile Arg  
 50 55 60  
 His Asn Leu Ser Leu His Ser Arg Phe Met Arg Ile Gln Asn Glu Gly  
 65 70 75 80  
 Ala Gly Lys Ser Ser Trp Trp Val Ile Asn Pro Asp Ala Lys Pro Gly  
 85 90 95  
 Met Asn Pro Arg Arg Thr Arg Glu Arg Ser  
 100 105



<210> 38  
 <211> 60  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 38  
 Glu Ile Lys Leu Ser Asp Phe Lys His Gln Leu Phe Glu Leu Ile Ala  
 1 5 10 15  
 Pro Met Lys Trp Gly Thr Tyr Ser Val Lys Pro Gln Asp Tyr Val Phe  
 20 25 30  
 Arg Gln Leu Asn Asn Phe Gly Glu Ile Glu Val Ile Phe Asn Asp Asp  
 35 40 45  
 Gln Pro Leu Ser Lys Leu Glu Leu His Gly Thr Phe  
 50 55 60

<210> 39  
 <211> 2784  
 <212> DNA  
 <213> Caenorhabditis elegans

<400> 39  
 atgaagctaa tagcaacttc tcttctagtt cccgacgagc acacaccgat gatgtcacca 60  
 gtgaatacaa ctacaaagat tctacaacgg agtgggtatta aaatggaaat cccgccatat 120  
 ttggatccag acagtcagga tgatgacccg gaagatgggtg tcaactaccc ggatccagat 180  
 ttatttgaca caaaaaacac aaatatgacc gagtacgatt tggatgtgtt gaagcttgga 240  
 aaaccagcag tagatgaagc acggaaaaag atcgaagttc ccgacgctag tgcgcccga 300  
 aacaaaattg tagaatattt gatgtattat agaacgttaa aagaaagtga actcatacaa 360  
 ctgaatgctg atcggacaaa acgaaatcga ttatcgttga acttgggtcaa aaacaatatt 420  
 gatcgagagt tcgacaaaaa agcttgcgag tccctgggtga aaaaattgaa ggataagaag 480  
 aatgatctcc agaacctgat tgatgtgggt ctttcaaaaag gtacaaaata taccggttgc 540  
 attacaattc caaggacact tgatggcccg ttacagggtcc acggaagaaa aggtttccct 600  
 cacgtagtct atggcaaact gtggagggtt aatgaaatga caaaaaacga aacgcgtcat 660  
 gtggaccact gcaagcacgc atttgaaatg aaaagtgcga tggatgctg gaatccctat 720  
 cactacgaaa ttgtcattgg aactatgatt gttgggcaga gggatcatga caatcgagat 780  
 atgcccgcgc cacatcaacg ctaccacact ccaggtcggc aggatccagt tgacgatatg 840  
 agtagattta taccaccagc ttccattcgt ccgcctccga tgaacatgca cacaaggcct 900  
 cagcctatgc ctcaacaatt gccttcagtt ggcgcaacgt ttgcccattc tctcccat 960  
 caggcgccac ataaccaggg ggtttcacat ccgtactcca ttgctccaca gaccattac 1020  
 ccgttgaaca tgaacccaat tccgcaaattg ccgcaaattgc cacaattgcc accacctctc 1080  
 catcagggat atggaatgaa tgggcccagt tgctcttcag aaaacaacaa tccattccac 1140  
 caaaatcacc attataatga tattagccat ccaaactact attcctacga ctgtgggtccg 1200  
 aacttgtacg gggttccaac tccttatccg gattttcacc atcctttcaa tcagcaacca 1260  
 caccagccgc cacaactatc acaaaacat acgtcccaac aaggcagtc tcaaccaggg 1320  
 caccaaggtc aggtaccgaa tgatccacca atttcaagac cagtgttaca accatcaaca 1380  
 gtcaccttgg acgtgttccg tcggtactgt agacagacat ttggaaatcg attttttgaa 1440  
 ggagaaagtg aacaatccgg cgcaataatt cggcttagta acaaattcat tgaagaattt 1500  
 gattcgccga tttgtggtgt gacagttgtt cgaccgcgga tgacagacgg tgagggtttg 1560  
 gagaacatca tgccggaaga tgcacatat catgacattt gcaagttcat tttgaggctc 1620  
 acatcagaaa gtgtaacttt ctccaggagag gggccagaag ttagtgattt gaacgaaaaa 1680  
 tggggaacaa ttgtgtacta tgagaaaaat ttgcaaatg gcgagaaaaa atgttcgaga 1740  
 ggaaaatttc acgtggattg cggattcatt tgctctgaga atcgttacag tctcggactt 1800  
 gagccaaatc caattagaga accagtggcg tttaaagttc gtaaagcaat agtggatgga 1860  
 attcgttttt cctacaaaaa agacgggagt gtttggcttc aaaaccgcat gaagtaccgg 1920  
 gtatttgtca cttctgggta tctcgacgag caatcaggag gcctaaagaa ggataaagtg 1980  
 cacaagttt acggatgtgc gtctatcaaa acgtttggct tcaacgtttc caaacaatc 2040  
 atcagagacg cgcttctttc caagcaaatg gcaacaatgt acttgcaagg aaaattgact 2100  
 ccgatgaatt atatctacga gaagaagact caggaagagc tgcaaggga agcaacacgc 2160  
 accactgatt cattggccaa gtactgttgt gtccgtgtct cgttctgcaa aggatttgga 2220

```
<210> 40
<211> 796
<212> PRT
<213> Caenorhabditis elegans
```

Met 1	Lys	Leu	Ile	Ala 5	Thr	Ser	Leu	Leu	Val 10	Pro	Asp	Glu	His	Thr 15	Pro
Met	Met	Ser	Pro	Val	Asn	Thr	Thr	Thr	Lys	Ile	Leu	Gln	Arg	Ser	Gly
			20					25					30		
Ile	Lys	Met	Glu	Ile	Pro	Pro	Tyr	Leu	Asp	Pro	Asp	Ser	Gln	Asp	Asp
		35					40					45			
Asp	Pro	Glu	Asp	Gly	Val	Asn	Tyr	Pro	Asp	Pro	Asp	Leu	Phe	Asp	Thr
		50				55					60				
Lys	Asn	Thr	Asn	Met	Thr	Glu	Tyr	Asp	Leu	Asp	Val	Leu	Lys	Leu	Gly
65					70					75					80
Lys	Pro	Ala	Val	Asp	Glu	Ala	Arg	Lys	Lys	Ile	Glu	Val	Pro	Asp	Ala
				85					90					95	
Ser	Ala	Pro	Pro	Asn	Lys	Ile	Val	Glu	Tyr	Leu	Met	Tyr	Tyr	Arg	Thr
			100					105					110		
Leu	Lys	Glu	Ser	Glu	Leu	Ile	Gln	Leu	Asn	Ala	Tyr	Arg	Thr	Lys	Arg
		115					120					125			
Asn	Arg	Leu	Ser	Leu	Asn	Leu	Val	Lys	Asn	Asn	Ile	Asp	Arg	Glu	Phe
		130				135					140				
Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys	Lys	Leu	Lys	Asp	Lys	Lys
145				150					155					160	
Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val	Leu	Ser	Lys	Gly	Thr	Lys
				165					170					175	
Tyr	Thr	Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr	Leu	Asp	Gly	Arg	Leu	Gln
			180					185					190		
Val	His	Gly	Arg	Lys	Gly	Phe	Pro	His	Val	Val	Tyr	Gly	Lys	Leu	Trp
		195					200					205			
Arg	Phe	Asn	Glu	Met	Thr	Lys	Asn	Glu	Thr	Arg	His	Val	Asp	His	Cys
		210				215					220				
Lys	His	Ala	Phe	Glu	Met	Lys	Ser	Asp	Met	Val	Cys	Val	Asn	Pro	Tyr
225				230					235					240	
His	Tyr	Glu	Ile	Val	Ile	Gly	Thr	Met	Ile	Val	Gly	Gln	Arg	Asp	His
				245					250					255	
Asp	Asn	Arg	Asp	Met	Pro	Pro	Pro	His	Gln	Arg	Tyr	His	Thr	Pro	Gly
			260					265					270		
Arg	Gln	Asp	Pro	Val	Asp	Asp	Met	Ser	Arg	Phe	Ile	Pro	Pro	Ala	Ser
		275					280					285			
Ile	Arg	Pro	Pro	Pro	Met	Asn	Met	His	Thr	Arg	Pro	Gln	Pro	Met	Pro
		290				295					300				
Gln	Gln	Leu	Pro	Ser	Val	Gly	Ala	Thr	Phe	Ala	His	Pro	Leu	Pro	His
305				310					315					320	
Gln	Ala	Pro	His	Asn	Pro	Gly	Val	Ser	His	Pro	Tyr	Ser	Ile	Ala	Pro
				325					330					335	

Gln	Thr	His	Tyr	Pro	Leu	Asn	Met	Asn	Pro	Ile	Pro	Gln	Met	Pro	Gln	
			340					345					350			
Met	Pro	Gln	Met	Pro	Pro	Pro	Leu	His	Gln	Gly	Tyr	Gly	Met	Asn	Gly	
		355					360					365				
Pro	Ser	Cys	Ser	Ser	Glu	Asn	Asn	Asn	Pro	Phe	His	Gln	Asn	His	His	
		370				375					380					
Tyr	Asn	Asp	Ile	Ser	His	Pro	Asn	His	Tyr	Ser	Tyr	Asp	Cys	Gly	Pro	
385					390					395					400	
Asn	Leu	Tyr	Gly	Phe	Pro	Thr	Pro	Tyr	Pro	Asp	Phe	His	His	Pro	Phe	
			405						410					415		
Asn	Gln	Gln	Pro	His	Gln	Pro	Pro	Gln	Leu	Ser	Gln	Asn	His	Thr	Ser	
			420					425					430			
Gln	Gln	Gly	Ser	His	Gln	Pro	Gly	His	Gln	Gly	Gln	Val	Pro	Asn	Asp	
		435					440					445				
Pro	Pro	Ile	Ser	Arg	Pro	Val	Leu	Gln	Pro	Ser	Thr	Val	Thr	Leu	Asp	
	450					455					460					
Val	Phe	Arg	Arg	Tyr	Cys	Arg	Gln	Thr	Phe	Gly	Asn	Arg	Phe	Phe	Glu	
465					470					475					480	
Gly	Glu	Ser	Glu	Gln	Ser	Gly	Ala	Ile	Ile	Arg	Ser	Ser	Asn	Lys	Phe	
			485						490					495		
Ile	Glu	Glu	Phe	Asp	Ser	Pro	Ile	Cys	Gly	Val	Thr	Val	Val	Arg	Pro	
			500					505					510			
Arg	Met	Thr	Asp	Gly	Glu	Val	Leu	Glu	Asn	Ile	Met	Pro	Glu	Asp	Ala	
		515					520					525				
Pro	Tyr	His	Asp	Ile	Cys	Lys	Phe	Ile	Leu	Arg	Leu	Thr	Ser	Glu	Ser	
	530					535					540					
Val	Thr	Phe	Ser	Gly	Glu	Gly	Pro	Glu	Val	Ser	Asp	Leu	Asn	Glu	Lys	
545					550					555					560	
Trp	Gly	Thr	Ile	Val	Tyr	Tyr	Glu	Lys	Asn	Leu	Gln	Ile	Gly	Glu	Lys	
			565						570					575		
Lys	Cys	Ser	Arg	Gly	Asn	Phe	His	Val	Asp	Gly	Gly	Phe	Ile	Cys	Ser	
			580					585					590			
Glu	Asn	Arg	Tyr	Ser	Leu	Gly	Leu	Glu	Pro	Asn	Pro	Ile	Arg	Glu	Pro	
		595					600					605				
Val	Ala	Phe	Lys	Val	Arg	Lys	Ala	Ile	Val	Asp	Gly	Ile	Arg	Phe	Ser	
	610						615				620					
Tyr	Lys	Lys	Asp	Gly	Ser	Val	Trp	Leu	Gln	Asn	Arg	Met	Lys	Tyr	Pro	
625					630					635					640	
Val	Phe	Val	Thr	Ser	Gly	Tyr	Leu	Asp	Glu	Gln	Ser	Gly	Gly	Leu	Lys	
			645						650					655		
Lys	Asp	Lys	Val	His	Lys	Val	Tyr	Gly	Cys	Ala	Ser	Ile	Lys	Thr	Phe	
			660					665					670			
Gly	Phe	Asn	Val	Ser	Lys	Gln	Ile	Arg	Asp	Ala	Leu	Leu	Ser	Lys		
		675					680					685				
Gln	Met	Ala	Thr	Met	Tyr	Leu	Gln	Gly	Lys	Leu	Thr	Pro	Met	Asn	Tyr	
	690					695					700					
Ile	Tyr	Glu	Lys	Lys	Thr	Gln	Glu	Glu	Leu	Arg	Arg	Glu	Ala	Thr	Arg	
705					710					715					720	
Thr	Thr	Asp	Ser	Leu	Ala	Lys	Tyr	Cys	Cys	Val	Arg	Val	Ser	Phe	Cys	
			725						730					735		
Lys	Gly	Phe	Gly	Glu	Ala	Tyr	Pro	Glu	Arg	Pro	Ser	Ile	His	Asp	Cys	
			740					745					750			
Pro	Val	Trp	Ile	Glu	Leu	Lys	Ile	Asn	Ile	Ala	Tyr	Asp	Phe	Met	Asp	
		755					760					765				
Ser	Ile	Cys	Gln	Tyr	Ile	Thr	Asn	Cys	Phe	Glu	Pro	Leu	Gly	Met	Glu	
	770					775					780					
Asp	Phe	Ala	Lys	Leu	Gly	Ile	Asn	Val	Ser	Asp	Asp					
785					790					795						

<210> 41  
 <211> 858  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 41  
 Met Gly Asp His His Asn Leu Thr Gly Leu Pro Gly Thr Ser Ile Pro  
 1 5 10 15  
 Pro Gln Phe Asn Tyr Ser Gln Pro Gly Thr Ser Thr Gly Gly Pro Leu  
 20 25 30  
 Tyr Gly Gly Lys Pro Ser His Gly Leu Glu Asp Ile Pro Asp Val Glu  
 35 40 45  
 Glu Tyr Glu Arg Asn Leu Leu Gly Ala Gly Ala Gly Phe Asn Leu Leu  
 50 55 60  
 Asn Val Gly Asn Met Ala Asn Val Pro Asp Glu His Thr Pro Met Met  
 65 70 75 80  
 Ser Pro Val Asn Thr Thr Lys Ile Leu Gln Arg Ser Gly Ile Lys  
 85 90 95  
 Met Glu Ile Pro Pro Tyr Leu Asp Pro Asp Ser Gln Asp Asp Asp Pro  
 100 105 110  
 Glu Asp Gly Val Asn Tyr Pro Asp Pro Asp Leu Phe Asp Thr Lys Asn  
 115 120 125  
 Thr Asn Met Thr Glu Tyr Asp Leu Asp Val Leu Lys Leu Gly Lys Pro  
 130 135 140  
 Ala Val Asp Glu Ala Arg Lys Lys Ile Glu Val Pro Asp Ala Ser Ala  
 145 150 155 160  
 Pro Pro Asn Lys Ile Val Glu Tyr Leu Met Tyr Tyr Arg Thr Leu Lys  
 165 170 175  
 Glu Ser Glu Leu Ile Gln Leu Asn Ala Tyr Arg Thr Lys Arg Asn Arg  
 180 185 190  
 Leu Ser Leu Asn Leu Val Lys Asn Asn Ile Asp Arg Glu Phe Asp Gln  
 195 200 205  
 Lys Ala Cys Glu Ser Leu Val Lys Lys Leu Lys Asp Lys Lys Asn Asp  
 210 215 220  
 Leu Gln Asn Leu Ile Asp Val Val Leu Ser Lys Gly Thr Lys Tyr Thr  
 225 230 235 240  
 Gly Cys Ile Thr Ile Pro Arg Thr Leu Asp Gly Arg Leu Gln Val His  
 245 250 255  
 Gly Arg Lys Gly Phe Pro His Val Val Tyr Gly Lys Leu Trp Arg Phe  
 260 265 270  
 Asn Glu Met Thr Lys Asn Glu Thr Arg His Val Asp His Cys Lys His  
 275 280 285  
 Ala Phe Glu Met Lys Ser Asp Met Val Cys Val Asn Pro Tyr His Tyr  
 290 295 300  
 Glu Ile Val Ile Gly Thr Met Ile Val Gly Gln Arg Asp His Asp Asn  
 305 310 315 320  
 Arg Asp Met Pro Pro Pro His Gln Arg Tyr His Thr Pro Gly Arg Gln  
 325 330 335  
 Asp Pro Val Asp Asp Met Ser Arg Phe Ile Pro Pro Ala Ser Ile Arg  
 340 345 350  
 Pro Pro Pro Met Asn Met His Thr Arg Pro Gln Pro Met Pro Gln Gln  
 355 360 365  
 Leu Pro Ser Val Gly Ala Thr Phe Ala His Pro Leu Pro His Gln Ala  
 370 375 380  
 Pro His Asn Pro Gly Val Ser His Pro Tyr Ser Ile Ala Pro Gln Thr  
 385 390 395 400  
 His Tyr Pro Leu Asn Met Asn Pro Ile Pro Gln Met Pro Gln Met Pro  
 405 410 415  
 Gln Met Pro Pro Pro Leu His Gln Gly Tyr Gly Met Asn Gly Pro Ser



<212> PRT

<213> Caenorhabditis elegans

<400> 42

Met	Gly	Asp	His	His	Asn	Leu	Thr	Gly	Leu	Pro	Gly	Thr	Ser	Ile	Pro
1				5					10					15	
Pro	Gln	Phe	Asn	Tyr	Ser	Gln	Pro	Gly	Thr	Ser	Thr	Gly	Gly	Pro	Leu
			20					25					30		
Tyr	Gly	Gly	Lys	Pro	Ser	His	Gly	Leu	Glu	Asp	Ile	Pro	Asp	Val	Glu
		35					40					45			
Glu	Tyr	Glu	Arg	Asn	Leu	Leu	Gly	Ala	Gly	Ala	Gly	Phe	Asn	Leu	Leu
	50					55					60				
Asn	Val	Gly	Asn	Met	Ala	Asn	Glu	Phe	Lys	Pro	Ile	Ile	Thr	Leu	Asp
65					70					75					80
Thr	Lys	Pro	Pro	Arg	Asp	Ala	Asn	Lys	Ser	Leu	Ala	Phe	Asn	Gly	Gly
				85					90					95	
Leu	Lys	Leu	Ile	Thr	Pro	Lys	Thr	Glu	Val	Pro	Asp	Glu	His	Thr	Pro
			100					105					110		
Met	Met	Ser	Pro	Val	Asn	Thr	Thr	Thr	Lys	Ile	Leu	Gln	Arg	Ser	Gly
		115					120					125			
Ile	Lys	Met	Glu	Ile	Pro	Pro	Tyr	Leu	Asp	Pro	Asp	Ser	Gln	Asp	Asp
	130					135					140				
Asp	Pro	Glu	Asp	Gly	Val	Asn	Tyr	Pro	Asp	Pro	Asp	Leu	Phe	Asp	Thr
145					150					155					160
Lys	Asn	Thr	Asn	Met	Thr	Glu	Tyr	Asp	Leu	Asp	Val	Leu	Lys	Leu	Gly
				165					170					175	
Lys	Pro	Ala	Val	Asp	Glu	Ala	Arg	Lys	Lys	Ile	Glu	Val	Pro	Asp	Ala
			180					185					190		
Ser	Ala	Pro	Pro	Asn	Lys	Ile	Val	Glu	Tyr	Leu	Met	Tyr	Tyr	Arg	Thr
		195					200					205			
Leu	Lys	Glu	Ser	Glu	Leu	Ile	Gln	Leu	Asn	Ala	Tyr	Arg	Thr	Lys	Arg
	210					215					220				
Asn	Arg	Leu	Ser	Leu	Asn	Leu	Val	Lys	Asn	Asn	Ile	Asp	Arg	Glu	Phe
225					230					235					240
Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys	Lys	Leu	Lys	Asp	Lys	Lys
				245					250					255	
Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val	Leu	Ser	Lys	Gly	Thr	Lys
		260						265					270		
Tyr	Thr	Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr	Leu	Asp	Gly	Arg	Leu	Gln
		275					280					285			
Val	His	Gly	Arg	Lys	Gly	Phe	Pro	His	Val	Val	Tyr	Gly	Lys	Leu	Trp
	290					295					300				
Arg	Phe	Asn	Glu	Met	Thr	Lys	Asn	Glu	Thr	Arg	His	Val	Asp	His	Cys
305					310					315					320
Lys	His	Ala	Phe	Glu	Met	Lys	Ser	Asp	Met	Val	Cys	Val	Asn	Pro	Tyr
				325					330					335	
His	Tyr	Glu	Ile	Val	Ile	Gly	Thr	Met	Ile	Val	Gly	Gln	Arg	Asp	His
		340						345					350		
Asp	Asn	Arg	Asp	Met	Pro	Pro	Pro	His	Gln	Arg	Tyr	His	Thr	Pro	Gly
		355					360					365			
Arg	Gln	Asp	Pro	Val	Asp	Asp	Met	Ser	Arg	Phe	Ile	Pro	Pro	Ala	Ser
	370					375					380				
Ile	Arg	Pro	Pro	Pro	Met	Asn	Met	His	Thr	Arg	Pro	Gln	Pro	Met	Pro
385					390					395					400
Gln	Gln	Leu	Pro	Ser	Val	Gly	Ala	Thr	Phe	Ala	His	Pro	Leu	Pro	His
				405					410					415	
Gln	Ala	Pro	His	Asn	Pro	Gly	Val	Ser	His	Pro	Tyr	Ser	Ile	Ala	Pro
			420						425				430		
Gln	Thr	His	Tyr	Pro	Leu	Asn	Met	Asn	Pro	Ile	Pro	Gln	Met	Pro	Gln

		435						440				445					
Met	Pro	Gln	Met	Pro	Pro	Pro	Leu	His	Gln	Gly	Tyr	Gly	Met	Asn	Gly		
	450					455					460						
Pro	Ser	Cys	Ser	Ser	Glu	Asn	Asn	Asn	Pro	Phe	His	Gln	Asn	His	His		
465					470					475					480		
Tyr	Asn	Asp	Ile	Ser	His	Pro	Asn	His	Tyr	Ser	Tyr	Asp	Cys	Gly	Pro		
				485					490					495			
Asn	Leu	Tyr	Gly	Phe	Pro	Thr	Pro	Tyr	Pro	Asp	Phe	His	His	Pro	Phe		
			500					505					510				
Asn	Gln	Gln	Pro	His	Gln	Pro	Pro	Gln	Leu	Ser	Gln	Asn	His	Thr	Ser		
		515					520					525					
Gln	Gln	Gly	Ser	His	Gln	Pro	Gly	His	Gln	Gly	Gln	Val	Pro	Asn	Asp		
	530					535					540						
Pro	Pro	Ile	Ser	Arg	Pro	Val	Leu	Gln	Pro	Ser	Thr	Val	Thr	Leu	Asp		
545					550					555					560		
Val	Phe	Arg	Arg	Tyr	Cys	Arg	Gln	Thr	Phe	Gly	Asn	Arg	Phe	Phe	Glu		
				565					570					575			
Gly	Glu	Ser	Glu	Gln	Ser	Gly	Ala	Ile	Arg	Ser	Ser	Asn	Lys	Phe			
			580					585				590					
Ile	Glu	Glu	Phe	Asp	Ser	Pro	Ile	Cys	Gly	Val	Thr	Val	Val	Arg	Pro		
	595					600						605					
Arg	Met	Thr	Asp	Gly	Glu	Val	Leu	Glu	Asn	Ile	Met	Pro	Glu	Asp	Ala		
	610					615					620						
Pro	Tyr	His	Asp	Ile	Cys	Lys	Phe	Ile	Leu	Arg	Leu	Thr	Ser	Glu	Ser		
625					630					635					640		
Val	Thr	Phe	Ser	Gly	Glu	Gly	Pro	Glu	Val	Ser	Asp	Leu	Asn	Glu	Lys		
				645					650					655			
Trp	Gly	Thr	Ile	Val	Tyr	Tyr	Glu	Lys	Asn	Leu	Gln	Ile	Gly	Glu	Lys		
			660				665					670					
Lys	Cys	Ser	Arg	Gly	Asn	Phe	His	Val	Asp	Gly	Gly	Phe	Ile	Cys	Ser		
	675					680						685					
Glu	Asn	Arg	Tyr	Ser	Leu	Gly	Leu	Glu	Pro	Asn	Pro	Ile	Arg	Glu	Pro		
	690					695					700						
Val	Ala	Phe	Lys	Val	Arg	Lys	Ala	Ile	Val	Asp	Gly	Ile	Arg	Phe	Ser		
705					710					715					720		
Tyr	Lys	Lys	Asp	Gly	Ser	Val	Trp	Leu	Gln	Asn	Arg	Met	Lys	Tyr	Pro		
				725					730					735			
Val	Phe	Val	Thr	Ser	Gly	Tyr	Leu	Asp	Glu	Gln	Ser	Gly	Gly	Leu	Lys		
			740					745					750				
Lys	Asp	Lys	Val	His	Lys	Val	Tyr	Gly	Cys	Ala	Ser	Ile	Lys	Thr	Phe		
	755						760					765					
Gly	Phe	Asn	Val	Ser	Lys	Gln	Ile	Ile	Arg	Asp	Ala	Leu	Leu	Ser	Lys		
	770					775					780						
Gln	Met	Ala	Thr	Met	Tyr	Leu	Gln	Gly	Lys	Leu	Thr	Pro	Met	Asn	Tyr		
785					790					795					800		
Ile	Tyr	Glu	Lys	Lys	Thr	Gln	Glu	Glu	Leu	Arg	Arg	Glu	Ala	Thr	Arg		
				805					810					815			
Thr	Thr	Asp	Ser	Leu	Ala	Lys	Tyr	Cys	Cys	Val	Arg	Val	Ser	Phe	Cys		
			820					825					830				
Lys	Gly	Phe	Gly	Glu	Ala	Tyr	Pro	Glu	Arg	Pro	Ser	Ile	His	Asp	Cys		
	835						840					845					
Pro	Val	Trp	Ile	Glu	Leu	Lys	Ile	Asn	Ile	Ala	Tyr	Asp	Phe	Met	Asp		
	850					855					860						
Ser	Ile	Cys	Gln	Tyr	Ile	Thr	Asn	Cys	Phe	Glu	Pro	Leu	Gly	Met	Glu		
865					870					875					880		
Asp	Phe	Ala	Lys	Leu	Gly	Ile	Asn	Val	Ser	Asp	Asp						
				885					890								

<210> 43  
 <211> 3499  
 <212> DNA  
 <213> *Caenorhabditis elegans*

```

<400> 43
tgatctttca agccgaagca atcaagacct caaagccaat caactctact cacttttctt      60
cagaacctta actttttgtg tcactttccc caaaaaccgt tcaagctgct gccttcactc      120
tcattcccctc ctcttactcc ttctttctcg tccgtacta ctgtatcttc tggacatcta      180
cctgtatata caccagtggc cagtcactcg ccattacaat ttcatcaatt gacacttctt      240
caacaacaac cgccgtcctc attcactccc gattcttctt catcctcaac atcgtcgtct      300
ttggctgaaa ttcccgaaga cgttatgatg gagatgctgg tagatcaggg aactgatgca      360
tcgtcatccg cctccacgtc cacctcatct gtttcgagat tcggagcgga cacgttcatt      420
aatacaccgg atgatgtgat gatgaatgat gatatggaac cgattcctcg tgatcgggtg      480
aatacgtggc caatgcgtag gccgcaactc gaaccaccac tcaactcgag tcccattatt      540
catgaacaaa ttctgaaga agatgctgac ctatacggga gcaatgagca atgtggacag      600
ctcggcggag catcttcaaa cgggtcgaca gcaatgcttc atactccaga tggaaagcaat      660
tctcatcaga catcgtttct tcggagtttc agaattgtccg aatcgccaga cgataccgta      720
tcgggaaaaa agacaacgac cagacggaac gcttggggaa atatgtcata tgctgaactt      780
atcactacag ccattatggc tagtccagag aaacggttaa ctcttgaca agtttacgaa      840
tggatgggtc agaattgttc atacttcagg gataagggag attcgaacag ttcagctgga      900
tggagaactc cgatccgtca caatctgtct cttcattctc gtttcattgcg aattcagaat      960
gaaggagccg gaaagagctc gtggtgggtt attaatccag atgcaaagcc aggaatgaat     1020
ccacggcgta cagtgaaacg atccaatact attgagacga ctacaaaggc tcaactcgaa     1080
aaatctcgcc gcggagccaa gaagaggata aaggagagag cattgatggg ctcccttcac     1140
tcgacactta atggaatttc gattgccgga tcgattcaaa cgatttctca cgatttgcatt     1200
gatgatgatc aatgcaagga gcatcttgata acgttccatc atctttccgt ccccgaaactc     1260
aatcgaaact ctcgattcct ggatcgctgt ctcggtgttc tccagctatt ggaagtgata     1320
tctatgatga tctagaattc ccattcatggg ttggcgaatc ggttccagca attccaagtg     1380
atattgttga tagaactgat caaatgcgta tcgatgcaac tactcatagt tgggtggagtt     1440
cagattaagc aggagtcgaa gccgattaag acggaaccaa ttgctccacc accatcatac     1500
cacgagttga acagtgtccg tggatcgtgt gctcagaatc cacttcttcg aaatccaatt     1560
gtgccaagca ctaacttcaa gccaatgcca ctaccgggtg cctatggaaa ctatcaaaat     1620
ggtggaataa tccaatcaa ttggctatca acatccaact catctccact gcctgggaatt     1680
caatcggtgt gaattgtagc tgcacagcat actgtcgctt ctatcatcggc tcttccaatt     1740
gattttgaaa atctgacact tcccgatcag ccaactgatg atactatgga tgttgatgca     1800
ttgatcagac atgagctgag tcaagctgga gggcagcata ttcattttga tttgtaaatt     1860
ctcttcattt tgtttccctt ggtgttgttc gaaagagaga tagcaaagca gcgaggagtg     1920
aggtaagcag caataaaaaa tttggatttt tttttggttt ttccagaaat aatcgatttt     1980
ctggaaaaat tcaaaaaaaa atcggaattt ttagttaatt atttgatgag aaaaaaaaaa     2040
tagaaaaacat aaggaaaaat gaaaagcgtt tttttttttc gaaaatttta gaattctcct     2100
acattttcaa taagggcctt agaactgcaa acaaacaaaa attggaattt tcgaatcaaa     2160
aagttcccga ataaaagtag ttcgaaatatt aaaaagcatt taatttcttc tttaaaaaaa     2220
ttgaataata gccgaaattt gcagattttt tttctgaaaa tcgaaaaaac aaaatttttt     2280
gattttttta atttttttt tactttccag atagtataat cattagcact gaaaattatt     2340
tgaaaaaaa cttcaaatat aaattttgtt ttcgaaaaaa aaaattttaa tatatatttt     2400
cagaaatctt ccgtcttcat cttttcaaat ccctacctac acacactcaa cgatcatcac     2460
agccagacca tcaatattct tccaaatttt gaogtcgtta attttttttc agtttttttca     2520
aaaactctat tttctatttt ctgtcgtttg ttcccttttc tctcgtctaa ttccaacaca     2580
ttcatcccag tgacgtcgtg taataataat ataaaatacc tcttctctct ttcttccctt     2640
aatgcgaaat atcgaaaaac cgttgattat tacctctttt ttcttgtttt ttttttctct     2700
ctctctctcc cgctcatccg gttcttcaact ctttaaatgc tactctatc ccatcttttt     2760
cgctgtaaat ttgttttcga atcaaaaactg ctaaaacaca ttccccaatc tgtctttttt     2820
aattgaattt ttcaaaaaat ttgatttctt gatttctctt gtaattcttt aattttcctc     2880
ttttttttcc ccttggtagc aaatgtctag cgattctctt tctttttttg ttttaactttc     2940
acatctggcc gattcgaatc ctccgtatac acacacacat agtaatctac ctccaaaatt     3000
ttactgaaag atgtgatccc ctctctgtct ccctctacaa aacattattt gtctgtttgt     3060
gtatattgcc accacgtcga ttttaaatta aaaccatcgt tttttcttct tttctacttt     3120
tttctcgaaa aatttaacaa cacacaaaaa aatccttcaa aaaatctcag ttttaaatgg     3180

```



tgtggcaata	tatcggtatcc	ccctctacac	cagaacagtc	ttgcaatttc	agagaatgat	3240
tttcagattt	ttcatatcac	aggccccctt	tttttgcttg	ttttttctc	tacctctctt	3300
tcttttcatt	ctatttctct	ctcttggttt	ctctctgtta	tcctgtacat	tttccttcca	3360
attctttctg	gctatttctg	attttcgagt	tcatattctc	tacgtctcac	tttctctcgc	3420
gccacgcccc	ctttttcgtc	tccctccgcc	cccaaata	tttgcgactg	tatgatgatg	3480
atgatgattt	aataaaaaat					3499

<210> 44  
 <211> 2704  
 <212> DNA  
 <213> *Caenorhabditis elegans*

<400> 44						
ttacacgtgg	ccaatgcaac	aatacatcta	tcaggaatcg	tcagcaacca	ttccccatca	60
ccatttaaat	caacacaaca	atccgtatca	tccaatgcat	cctcatcatc	aattacctca	120
tatgcaacaa	cttcttcaac	ctctattgaa	tcttaacatg	acgacgttaa	catcttcttg	180
cagttccgtg	gccagttcca	ttggaggcgg	agctcaatgc	tctccgtgcg	cgtcgggctc	240
ctcgaccgct	gcaacaaatt	cctctcaaca	gcagcagacc	gttggtcaaa	tgcttgctgc	300
atcggtgcct	tggtcttcat	ctggcatgac	acttgggaatg	tcacttaatc	tgtcacaagg	360
cgggtgtcca	atgccggcaa	aaaagaagcg	ttgtcgtaag	aagccaaccg	atcaattggc	420
acagaagaaa	ccgaatccat	ggggtgagga	atcctattcg	gatatcattg	caaagcatt	480
ggaatcggcg	ccagacggaa	ggcttaaaact	caatgagatt	tatcaatggg	tctctgataa	540
tattccctac	tttgagagaa	gatctagtcc	cgaggaggcc	gccggatgga	agaactcgat	600
ccgtcacaa	ctgtctcttc	attctcgttt	catgcgaatt	cagaatgaag	gagccggaaa	660
gagctcgtgg	tggtttatta	atccagatgc	aaagccagga	atgaatccac	ggcgtacacg	720
tgaacgatcc	aatactattg	agacgactac	aaaggctcaa	ctcgaaaaat	ctcgccgcgg	780
agccaagaag	aggataaagg	agagagcatt	gatgggctcc	cttcaactcga	cacttaattg	840
aaattcgatt	gccggatcga	ttcaaacgat	ttctcacgat	ttgtatgatg	atgattcaat	900
gcaaggagca	tttgataacg	ttccatcatc	tttccgtccc	cgaactcaat	cgaacctctc	960
gattcctgga	tcgtcgtctc	gtgtttctcc	agctattgga	agtgatattc	atgatgatct	1020
agaattccca	tcatgggttg	gcgaatcggg	tccagcaatt	ccaagtgata	ttgttgatag	1080
aactgatcaa	atgcgtatcg	atgcaactac	tcatattggg	ggagttcaga	ttaagcagga	1140
gtcgaagccg	attaagacgg	aaccaattgc	tccaccacca	tcataccacg	agttgaacag	1200
tgtccgtgga	tcgtgtgctc	agaatccact	tcttcgaaat	ccaattgtgc	caagcactaa	1260
cttcaagcca	atgccactac	cgggtgccta	tggaactat	caaaatgggtg	gaataactcc	1320
aatcaattgg	ctatcaacat	ccaactcatc	tccactgcct	ggaattcaat	cgtgtggaat	1380
tgtagctgca	cagcatactg	tcgtttcttc	atcggtctct	ccaattgatt	tggaataatc	1440
gacacttccc	gatcagccac	tgatggatac	tatggatggt	gatgcattga	tcagacatga	1500
gctgagtcaa	gctggagggc	agcatattca	ttttgatttg	taaattctct	tcattttggt	1560
tcccctgggtg	ttgttcgaaa	gagagatagc	aaagcagcga	ggagtggaga	atcttccgctc	1620
ttcatctttt	caaatcccta	cctacacaca	ctcaacgatc	atcacagcca	gaccatcaat	1680
attcttccaa	attttgacgt	cgttaatttt	ttttcagttt	tttcaaaaac	tctattttct	1740
attttctgtc	gtttgttccc	ctttctctcg	tctaattcca	acacattcat	cccagtgacg	1800
tcgtgtaata	ataatataaa	atacctcttc	tctctttctt	cccctaattgc	gaaatatcga	1860
aaaaccgttg	attattacct	cttttttctt	gttttttttt	tctctctctc	tctcccgtca	1920
tccaggttct	tcactcttta	aatgctacct	ctatcccata	tttttcgctg	ttaaatttggt	1980
tcgcaatcaa	aactgctaaa	acacattccc	caatctgtct	tttttaattg	aatttttcaa	2040
aaaatttgat	ttcttgattt	ctcttgtaat	tctttaattt	tcctcttttt	tttccccctg	2100
gtagcaaatg	tctagcgatt	ctctttcttt	ttttgtttta	ctttcacatc	tggccgattc	2160
gaatcctccg	tatacacaca	cacatagtaa	tctacctcca	aaattttact	gaaagatgtg	2220
atccccctct	tgtctccctc	tacaaaacat	tatttgctgt	tttggtgata	ttgcccaccac	2280
gtcgatttta	aattaaaaacc	atcgtttttt	cttcttttct	acttttttct	cgaaaaattt	2340
aacaacacac	aaaaaaatcc	ttcaaaaaat	ctcagtttta	aatgggtgtg	caatataatcg	2400
gatccccctc	tacaccagaa	cagtcttgca	atttcagaga	atgattttca	gatttttcat	2460
atcacaggcc	cccttttttt	gcttggtttt	ttctctacct	ctctttcttt	tcattctatt	2520
tctctctctt	gttttctctc	tgttatccctg	tacattttcc	ttccaattct	ttctggctat	2580
ttctgatttt	cgagttcata	ttctctacgt	ctcactttct	ctcgcgccac	gccccctttt	2640
tcgtctccct	ccgcccccaa	atatatttgc	gactgtatga	tgatgatgat	gatttaataa	2700
aaat						2704

<210> 45  
 <211> 510  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 45  
 Met Met Glu Met Leu Val Asp Gln Gly Thr Asp Ala Ser Ser Ser Ala  
 1 5 10 15  
 Ser Thr Ser Thr Ser Ser Val Ser Arg Phe Gly Ala Asp Thr Phe Met  
 20 25 30  
 Asn Thr Pro Asp Asp Val Met Met Asn Asp Asp Met Glu Pro Ile Pro  
 35 40 45  
 Arg Asp Arg Cys Asn Thr Trp Pro Met Arg Arg Pro Gln Leu Glu Pro  
 50 55 60  
 Pro Leu Asn Ser Ser Pro Ile Ile His Glu Gln Ile Pro Glu Glu Asp  
 65 70 75 80  
 Ala Asp Leu Tyr Gly Ser Asn Glu Gln Cys Gly Gln Leu Gly Gly Ala  
 85 90 95  
 Ser Ser Asn Gly Ser Thr Ala Met Leu His Thr Pro Asp Gly Ser Asn  
 100 105 110  
 Ser His Gln Thr Ser Phe Pro Ser Asp Phe Arg Met Ser Glu Ser Pro  
 115 120 125  
 Asp Asp Thr Val Ser Gly Lys Lys Thr Thr Thr Arg Arg Asn Ala Trp  
 130 135 140  
 Gly Asn Met Ser Tyr Ala Glu Leu Ile Thr Thr Ala Ile Met Ala Ser  
 145 150 155 160  
 Pro Glu Lys Arg Leu Thr Leu Ala Gln Val Tyr Glu Trp Met Val Gln  
 165 170 175  
 Asn Val Pro Tyr Phe Arg Asp Lys Gly Asp Ser Asn Ser Ser Ala Gly  
 180 185 190  
 Trp Lys Asn Ser Ile Arg His Asn Leu Ser Leu His Ser Arg Phe Met  
 195 200 205  
 Arg Ile Gln Asn Glu Gly Ala Gly Lys Ser Ser Trp Trp Val Ile Asn  
 210 215 220  
 Pro Asp Ala Lys Pro Gly Met Asn Pro Arg Arg Thr Arg Glu Arg Ser  
 225 230 235 240  
 Asn Thr Ile Glu Thr Thr Thr Lys Ala Gln Leu Glu Lys Ser Arg Arg  
 245 250 255  
 Gly Ala Lys Lys Arg Ile Lys Glu Arg Ala Leu Met Gly Ser Leu His  
 260 265 270  
 Ser Thr Leu Asn Gly Asn Ser Ile Ala Gly Ser Ile Gln Thr Ile Ser  
 275 280 285  
 His Asp Leu Tyr Asp Asp Asp Ser Met Gln Gly Ala Phe Asp Asn Val  
 290 295 300  
 Pro Ser Ser Phe Arg Pro Arg Thr Gln Ser Asn Leu Ser Ile Pro Gly  
 305 310 315 320  
 Ser Ser Ser Arg Val Ser Pro Ala Ile Gly Ser Asp Ile Tyr Asp Asp  
 325 330 335  
 Leu Glu Phe Pro Ser Trp Val Gly Glu Ser Val Pro Ala Ile Pro Ser  
 340 345 350  
 Asp Ile Val Asp Arg Thr Asp Gln Met Arg Ile Asp Ala Thr Thr His  
 355 360 365  
 Ile Gly Gly Val Gln Ile Lys Gln Glu Ser Lys Pro Ile Lys Thr Glu  
 370 375 380  
 Pro Ile Ala Pro Pro Pro Ser Tyr His Glu Leu Asn Ser Val Arg Gly  
 385 390 395 400  
 Ser Cys Ala Gln Asn Pro Leu Leu Arg Asn Pro Ile Val Pro Ser Thr  
 405 410 415  
 Asn Phe Lys Pro Met Pro Leu Pro Gly Ala Tyr Gly Asn Tyr Gln Asn

			420					425				430			
Gly	Gly	Ile	Thr	Pro	Ile	Asn	Trp	Leu	Ser	Thr	Ser	Asn	Ser	Ser	Pro
		435					440					445			
Leu	Pro	Gly	Ile	Gln	Ser	Cys	Gly	Ile	Val	Ala	Ala	Gln	His	Thr	Val
	450					455					460				
Ala	Ser	Ser	Ser	Ala	Leu	Pro	Ile	Asp	Leu	Glu	Asn	Leu	Thr	Leu	Pro
465					470					475					480
Asp	Gln	Pro	Leu	Met	Asp	Thr	Met	Asp	Val	Asp	Ala	Leu	Ile	Arg	His
			485					490						495	
Glu	Leu	Ser	Gln	Ala	Gly	Gly	Gln	His	Ile	His	Phe	Asp	Leu		
			500					505					510		

<210> 46  
 <211> 509  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 46

Met	Gln	Gln	Tyr	Ile	Tyr	Gln	Glu	Ser	Ser	Ala	Thr	Ile	Pro	His	His
1				5					10					15	
His	Leu	Asn	Gln	His	Asn	Asn	Pro	Tyr	His	Pro	Met	His	Pro	His	His
		20						25					30		
Gln	Leu	Pro	His	Met	Gln	Gln	Leu	Pro	Gln	Pro	Leu	Leu	Asn	Leu	Asn
	35						40					45			
Met	Thr	Thr	Leu	Thr	Ser	Ser	Gly	Ser	Ser	Val	Ala	Ser	Ser	Ile	Gly
	50					55					60				
Gly	Gly	Ala	Gln	Cys	Ser	Pro	Cys	Ala	Ser	Gly	Ser	Ser	Thr	Ala	Ala
65				70						75				80	
Thr	Asn	Ser	Ser	Gln	Gln	Gln	Gln	Thr	Val	Gly	Gln	Met	Leu	Ala	Ala
			85					90					95		
Ser	Val	Pro	Cys	Ser	Ser	Ser	Gly	Met	Thr	Leu	Gly	Met	Ser	Leu	Asn
		100						105					110		
Leu	Ser	Gln	Gly	Gly	Gly	Pro	Met	Pro	Ala	Lys	Lys	Lys	Arg	Cys	Arg
	115					120						125			
Lys	Lys	Pro	Thr	Asp	Gln	Leu	Ala	Gln	Lys	Lys	Pro	Asn	Pro	Trp	Gly
	130					135					140				
Glu	Glu	Ser	Tyr	Ser	Asp	Ile	Ile	Ala	Lys	Ala	Leu	Glu	Ser	Ala	Pro
145					150					155					160
Asp	Gly	Arg	Leu	Lys	Leu	Asn	Glu	Ile	Tyr	Gln	Trp	Phe	Ser	Asp	Asn
			165					170						175	
Ile	Pro	Tyr	Phe	Gly	Glu	Arg	Ser	Ser	Pro	Glu	Glu	Ala	Ala	Gly	Trp
		180						185					190		
Lys	Asn	Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	His	Ser	Arg	Phe	Met	Arg
	195					200						205			
Ile	Gln	Asn	Glu	Gly	Ala	Gly	Lys	Ser	Ser	Trp	Trp	Val	Ile	Asn	Pro
	210					215					220				
Asp	Ala	Lys	Pro	Gly	Met	Asn	Pro	Arg	Arg	Thr	Arg	Glu	Arg	Ser	Asn
225					230					235					240
Thr	Ile	Glu	Thr	Thr	Lys	Ala	Gln	Leu	Glu	Lys	Ser	Arg	Arg	Gly	
			245					250					255		
Ala	Lys	Lys	Arg	Ile	Lys	Glu	Arg	Ala	Leu	Met	Gly	Ser	Leu	His	Ser
		260						265					270		
Thr	Leu	Asn	Gly	Asn	Ser	Ile	Ala	Gly	Ser	Ile	Gln	Thr	Ile	Ser	His
		275					280					285			
Asp	Leu	Tyr	Asp	Asp	Asp	Ser	Met	Gln	Gly	Ala	Phe	Asp	Asn	Val	Pro
	290					295					300				
Ser	Ser	Phe	Arg	Pro	Arg	Thr	Gln	Ser	Asn	Leu	Ser	Ile	Pro	Gly	Ser
305					310					315					320

Ser	Ser	Arg	Val	Ser	Pro	Ala	Ile	Gly	Ser	Asp	Ile	Tyr	Asp	Asp	Leu
				325					330					335	
Glu	Phe	Pro	Ser	Trp	Val	Gly	Glu	Ser	Val	Pro	Ala	Ile	Pro	Ser	Asp
			340					345					350		
Ile	Val	Asp	Arg	Thr	Asp	Gln	Met	Arg	Ile	Asp	Ala	Thr	Thr	His	Ile
		355					360					365			
Gly	Gly	Val	Gln	Ile	Lys	Gln	Glu	Ser	Lys	Pro	Ile	Lys	Thr	Glu	Pro
	370					375					380				
Ile	Ala	Pro	Pro	Pro	Ser	Tyr	His	Glu	Leu	Asn	Ser	Val	Arg	Gly	Ser
385					390					395					400
Cys	Ala	Gln	Asn	Pro	Leu	Leu	Arg	Asn	Pro	Ile	Val	Pro	Ser	Thr	Asn
			405						410					415	
Phe	Lys	Pro	Met	Pro	Leu	Pro	Gly	Ala	Tyr	Gly	Asn	Tyr	Gln	Asn	Gly
			420					425					430		
Gly	Ile	Thr	Pro	Ile	Asn	Trp	Leu	Ser	Thr	Ser	Asn	Ser	Ser	Pro	Leu
		435					440					445			
Pro	Gly	Ile	Gln	Ser	Cys	Gly	Ile	Val	Ala	Ala	Gln	His	Thr	Val	Ala
	450					455					460				
Ser	Ser	Ser	Ala	Leu	Pro	Ile	Asp	Leu	Glu	Asn	Leu	Thr	Leu	Pro	Asp
465					470					475					480
Gln	Pro	Leu	Met	Asp	Thr	Met	Asp	Val	Asp	Ala	Leu	Ile	Arg	His	Glu
			485						490					495	
Leu	Ser	Gln	Ala	Gly	Gly	Gln	His	Ile	His	Phe	Asp	Leu			
			500					505							

<210> 47  
 <211> 3504  
 <212> DNA  
 <213> Caenorhabditis elegans

<400> 47	
cggaagccat	ggagctcgag atctgattgc tggacacgga cggaactccg acgtatctcg 60
cagatgcatg	ttaacatttt acatccacaa ctgcaaacga tggctcgagca gtggcaaagt 120
cgagaacgcc	catcgctgga gaccgagaat ggcaaaggat cgctgctcct ggaaaatgaa 180
ggtgtcgag	atcatcac tatgtgtcca ttcggagaag ttattagtgt agtatttccg 240
tggtttcttg	caaagtgtgcg aacatcgcta gaaatcaagc tatcagattt caaacatcaa 300
cttttcgaat	tgattgctcc gatgaagtgg ggaacatatt ccgtaaagcc acaggattat 360
gtgttcagac	agttgaataa ttctggcgaa attgaagtta tatttaacga cgatcaaccc 420
ctgtcgaaat	tagagctcca cggcactttc ccaatgcttt ttctctacca acctgatgga 480
ataaacaggg	ataaagaatt aatgagtgat ataagtcatt gtctaggata ctactggat 540
aaactggaag	agagcctcga tgaggaaactc cgtcaatttc gtgcttctct ctgggctcgt 600
acgaagaaa	cgtgcttgac acgtggactt gagggtacca gtcactacgc gttccccgaa 660
gaacagtact	tgtgtgttg tgaatcgtgc ccgaaagatt tggaatcaaa agtcaaggct 720
gccaaagtga	gttatcagat gttttggaga aaacgtaaag cggaaatcaa tggagtgtgc 780
gagaaaatga	tgaagattca aattgaattc aatccgaacg aaactccgaa atctctgctt 840
cacacgtttc	tctacgaaat gcgaaaattg gatgtatacg ataccgatga tctgtcagat 900
gaaggatggt	ttcttcaatt ggctggacgt accacgtttg ttacaaatcc agatgtcaaa 960
cttacgtctt	atgatggtgt ccgttcggaa ctggaaagct atcgatgccc tggattcggt 1020
gttcgccgac	aatcactagt cctcaaagac tattgtcgcc caaaaccact ctacgaacca 1080
cattatgtga	gagcacacga acgaaaactt gctctagacg tgctcagcgt gtctatagat 1140
agcacacca	aacagagcaa gaacagtgac atggttatga ctgattttcg tccgacagct 1200
tcactcaaac	aagtttcaact ttgggacctt gacgcgaatc ttatgatacg gcctgtgaat 1260
atttctggat	tcgatttccc ggccgacgtg gatatgtacg ttcgaatcga attcagtgt 1320
tatgtgggga	cactgacgct ggcatacaaa tctacaacaa aagtgaatgc tcaatttgca 1380
aatggaata	aggaaatgta cacttttgat ctatacatga aggatatgcc accatctgca 1440
gtactcagca	ttcgtgtttt gtacggaaaa gtgaaattaa aaagtgaaga attcgaagtt 1500
ggttgggtaa	atatgtccct aaccgattgg agagatgaac tacgacaagg acaattttta 1560
ttccatctgt	gggctcctga accgactgcc aatcgtagta ggatcggaga aaatggagca 1620

aggataggca	ccaacgcagc	ggttacaatt	gaaatctcaa	gttatgggtg	tagagttcga	1680
atgccgagtc	aaggacaata	cacatatctc	gtcaagcacc	gaagtacttg	gacggaaaact	1740
ttgaatatta	tgggtgatga	ctatgagtcg	tgtatcagag	atccaggata	taagaagctt	1800
cagatgcttg	tcaagaagca	tgaatctgga	attgtattag	aggaagatga	acaacgtcat	1860
gtctggatgt	ggaggagata	cattcaaaaag	caggagcctg	atttgctcat	tgtgctctcc	1920
gaactcgcat	ttgtgtggac	tgatcgtgag	aacttttccg	agctctatgt	gatgcttgaa	1980
aaatggaaac	cgccgagtg	ggcagccgcg	ttgactttgc	ttggaaaacg	ttgcacggat	2040
cgtgtgattc	gaaagtttgc	agtggagaag	ttgaatgagc	agctgagccc	ggtcacattc	2100
catcttttca	tattgcctct	catacaggcg	ttgaagtacg	aaccgcgtgc	tcaatcggaa	2160
gttggaatga	tgctcttgac	tagagctctc	tgcgattatc	gaattggaca	tcgacttttc	2220
tggctgctcc	gtgcagagat	tgctcgtttg	agagattgtg	atctgaaaag	tgaagaatat	2280
cgccgtatct	cacttctgat	ggaagcttac	ctccgtggaa	atgaagagca	catcaagatc	2340
atcacccgac	aagttgacat	ggttgatgag	ctcacacgaa	tcagcactct	tgtcaaagga	2400
atgccaaaag	atgttgctac	gatgaaactg	cgtgacgagc	ttcgatcgat	tagtcataaa	2460
atggaaaata	tggattctcc	actggatcct	gtgtacaaac	tgggtgaaat	gataatcgac	2520
aaagccatcg	tcctaggaag	tgcaaaacgt	ccgttaatgc	ttcactggaa	gaacaaaaat	2580
ccaaagagtg	acctgcacct	tccgttctgt	gcaatgatct	tcaagaatgg	agacgatctt	2640
cgccaggaca	tgcttgttct	tcaagttctc	gaagttatgg	ataacatctg	gaaggctgca	2700
aacattgatt	gctgtttgaa	cccgtacgca	gttcttccaa	tgggagaaat	gattggaatt	2760
attgaagttg	tgcttaattg	taaaacaata	ttcgagattc	aagttggaac	aggattcatg	2820
aatacagcag	ttcggagtat	tgatccttcg	tttatgaata	agtggattcg	gaaacaatgc	2880
ggaattgaag	atgaaaagaa	gaaaagcaaa	aaggactcta	cgaaaaatcc	catcgaaaag	2940
aagattgata	atactcaagc	catgaagaaa	tattttgaaa	gtgtcgatcg	attcctatac	3000
tcgtgtgttg	gatattcagt	tgccacgtac	ataatgggaa	tcaaggatcg	tcacagtgat	3060
aatctgatgc	tcactgaaga	tggaaaatat	gtccacattg	atttcggtca	cattttggga	3120
cacggaaaga	ccaaacttgg	gatccagcga	gatcgtcaac	cgtttattct	aaccgaacac	3180
tttatgacag	tgattcgtac	gggtaaatct	gtggatggaa	attcgcatga	gctacaaaaa	3240
ttcaaaacgt	tatgcgtcga	agcctacgaa	gtaatgtgga	ataatcgaga	tttgttcgtt	3300
tccttgttca	ccttgatgct	cggaatggag	ttgcctgagc	tgctcgacgaa	agcggatttg	3360
gatcatttga	agaaaaccct	cttctgcaat	ggagaaagca	aagaagaagc	gagaaagttt	3420
ttcgctggaa	tctacgaaga	agccttcaat	ggatcatggt	ctaccaaacc	gaattggctc	3480
ttccacgcag	tcaaacacta	ctga				3504

<210> 48  
 <211> 1167  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 48

Arg	Lys	Pro	Trp	Ser	Ser	Arg	Ser	Asp	Cys	Trp	Thr	Arg	Thr	Glu	Leu
1				5					10					15	
Arg	Arg	Ile	Ser	Gln	Met	His	Val	Asn	Ile	Leu	His	Pro	Gln	Leu	Gln
			20					25					30		
Thr	Met	Val	Glu	Gln	Trp	Gln	Met	Arg	Glu	Arg	Pro	Ser	Leu	Glu	Thr
		35					40					45			
Glu	Asn	Gly	Lys	Gly	Ser	Leu	Leu	Leu	Glu	Asn	Glu	Gly	Val	Ala	Asp
	50					55				60					
Ile	Ile	Thr	Met	Cys	Pro	Phe	Gly	Glu	Val	Ile	Ser	Val	Val	Phe	Pro
65				70					75					80	
Trp	Phe	Leu	Ala	Asn	Val	Arg	Thr	Ser	Leu	Glu	Ile	Lys	Leu	Ser	Asp
			85					90					95		
Phe	Lys	His	Gln	Leu	Phe	Glu	Leu	Ile	Ala	Pro	Met	Lys	Trp	Gly	Thr
		100					105					110			
Tyr	Ser	Val	Lys	Pro	Gln	Asp	Tyr	Val	Phe	Arg	Gln	Leu	Asn	Asn	Phe
	115					120					125				
Gly	Glu	Ile	Glu	Val	Ile	Phe	Asn	Asp	Asp	Gln	Pro	Leu	Ser	Lys	Leu
	130				135					140					
Glu	Leu	His	Gly	Thr	Phe	Pro	Met	Leu	Phe	Leu	Tyr	Gln	Pro	Asp	Gly
145				150				155						160	



625					630					635				640
Glu	Leu	Ala	Phe	Val	Trp	Thr	Asp	Arg	Glu	Asn	Phe	Ser	Glu	Leu
				645					650					655
Val	Met	Leu	Glu	Lys	Trp	Lys	Pro	Pro	Ser	Val	Ala	Ala	Ala	Leu
			660					665					670	
Leu	Leu	Gly	Lys	Arg	Cys	Thr	Asp	Arg	Val	Ile	Arg	Lys	Phe	Ala
		675					680					685		Val
Glu	Lys	Leu	Asn	Glu	Gln	Leu	Ser	Pro	Val	Thr	Phe	His	Leu	Phe
	690					695					700			Ile
Leu	Pro	Leu	Ile	Gln	Ala	Leu	Lys	Tyr	Glu	Pro	Arg	Ala	Gln	Ser
705				710					715					720
Val	Gly	Met	Met	Leu	Leu	Thr	Arg	Ala	Leu	Cys	Asp	Tyr	Arg	Ile
			725						730					735
His	Arg	Leu	Phe	Trp	Leu	Leu	Arg	Ala	Glu	Ile	Ala	Arg	Leu	Arg
		740					745					750		Asp
Cys	Asp	Leu	Lys	Ser	Glu	Glu	Tyr	Arg	Arg	Ile	Ser	Leu	Leu	Met
		755					760					765		Glu
Ala	Tyr	Leu	Arg	Gly	Asn	Glu	Glu	His	Ile	Lys	Ile	Ile	Thr	Arg
	770					775					780			Gln
Val	Asp	Met	Val	Asp	Glu	Leu	Thr	Arg	Ile	Ser	Thr	Leu	Val	Lys
785				790						795				800
Met	Pro	Lys	Asp	Val	Ala	Thr	Met	Lys	Leu	Arg	Asp	Glu	Leu	Arg
			805						810					815
Ile	Ser	His	Lys	Met	Glu	Asn	Met	Asp	Ser	Pro	Leu	Asp	Pro	Val
		820					825					830		Tyr
Lys	Leu	Gly	Glu	Met	Ile	Ile	Asp	Lys	Ala	Ile	Val	Leu	Gly	Ser
		835					840					845		Ala
Lys	Arg	Pro	Leu	Met	Leu	His	Trp	Lys	Asn	Lys	Asn	Pro	Lys	Ser
	850					855					860			Asp
Leu	His	Leu	Pro	Phe	Cys	Ala	Met	Ile	Phe	Lys	Asn	Gly	Asp	Asp
865				870					875					880
Arg	Gln	Asp	Met	Leu	Val	Leu	Gln	Val	Leu	Glu	Val	Met	Asp	Asn
			885						890					895
Trp	Lys	Ala	Ala	Asn	Ile	Asp	Cys	Cys	Leu	Asn	Pro	Tyr	Ala	Val
		900						905					910	Leu
Pro	Met	Gly	Glu	Met	Ile	Gly	Ile	Ile	Glu	Val	Val	Pro	Asn	Cys
		915					920					925		Lys
Thr	Ile	Phe	Glu	Ile	Gln	Val	Gly	Thr	Gly	Phe	Met	Asn	Thr	Ala
	930					935					940			Val
Arg	Ser	Ile	Asp	Pro	Ser	Phe	Met	Asn	Lys	Trp	Ile	Arg	Lys	Gln
945				950					955					Cys
Gly	Ile	Glu	Asp	Glu	Lys	Lys	Lys	Ser	Lys	Lys	Asp	Ser	Thr	Lys
			965						970					Asn
Pro	Ile	Glu	Lys	Lys	Ile	Asp	Asn	Thr	Gln	Ala	Met	Lys	Lys	Tyr
		980					985					990		Phe
Glu	Ser	Val	Asp	Arg	Phe	Leu	Tyr	Ser	Cys	Val	Gly	Tyr	Ser	Val
		995					1000					1005		Ala
Thr	Tyr	Ile	Met	Gly	Ile	Lys	Asp	Arg	His	Ser	Asp	Asn	Leu	Met
	1010					1015					1020			Leu
Thr	Glu	Asp	Gly	Lys	Tyr	Val	His	Ile	Asp	Phe	Gly	His	Ile	Leu
1025					1030					1035				Gly
His	Gly	Lys	Thr	Lys	Leu	Gly	Ile	Gln	Arg	Asp	Arg	Gln	Pro	Phe
			1045						1050					Ile
Leu	Thr	Glu	His	Phe	Met	Thr	Val	Ile	Arg	Ser	Gly	Lys	Ser	Val
		1060							1065			1070		Asp
Gly	Asn	Ser	His	Glu	Leu	Gln	Lys	Phe	Lys	Thr	Leu	Cys	Val	Glu
	1075						1080					1085		Ala
Tyr	Glu	Val	Met	Trp	Asn	Asn	Arg	Asp	Leu	Phe	Val	Ser	Leu	Phe
	1090					1095					1100			Thr

Leu Met Leu Gly Met Glu Leu Pro Glu Leu Ser Thr Lys Ala Asp Leu  
 1105 1110 1115 112  
 Asp His Leu Lys Lys Thr Leu Phe Cys Asn Gly Glu Ser Lys Glu Glu  
 1125 1130 1135  
 Ala Arg Lys Phe Phe Ala Gly Ile Tyr Glu Glu Ala Phe Asn Gly Ser  
 1140 1145 1150  
 Trp Ser Thr Lys Thr Asn Trp Leu Phe His Ala Val Lys His Tyr  
 1155 1160 1165

<210> 49  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Probe/primer derived from *C. elegans*

<400> 49  
 ggaaatattt taggccagat gcg 23

<210> 50  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Probe/primer derived from *C. elegans*

<400> 50  
 cggacagtcc tgaatacacc 20

<210> 51  
 <211> 28  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Probe/primer derived from *C. elegans*

<400> 51  
 tctcgttggt tgccgtcgga tgtctgcc 28

<210> 52  
 <211> 3017  
 <212> DNA  
 <213> *Caenorhabditis elegans*

<400> 52  
 gtaatcaaat tgtaaaggaa aaatattaat agtcagagta cacataaatg ggtgatcatc 60  
 ataatttaac gggccttccc ggtacctcca tcccgccaca gttcaactat tctcagcccg 120  
 gtaccagcac cggaggcccg ctttatggtg gaaaaccttc tcatggattg gaagatatc 180  
 ctgatgtaga ggaatatgag aggaacctgc tcggggctgg agcagggtttt aatctgctca 240  
 atgtaggaaa tatggctaata gttcccgcag agcacacacc gatgatgtca ccagtgaata 300  
 caactacaaa gattctacaa cggagtggta ttaaaatgga aatcccgcga tatttgatc 360  
 cagacagtca ggatgatgac ccggaagatg gtgtcaacta cccggatcca gatttatttg 420  
 acacaaaaaa cacaaatatg accgagtacg atttggatgt gttgaagctt ggaaaaccag 480  
 cagtagatga agcacggaaa aagatcgaag ttcccgcagc tagtgcgccg ccaaacaaaa 540  
 ttgtagaata tttgatgtat tatagaacgt taaaagaaa tgaactcata caactgaatg 600



cgtatcggac	aaaacgaaat	cgattatcgt	tgaacttggg	caaaaaacaat	attgatcgag	660
agttcgacca	aaaagcttgc	gagtccttgg	tgaaaaaaatt	gaaggataag	aagaatgadc	720
tccagaacct	gattgatgtg	gttctttcaa	aaggtacaaa	atataccggg	tgcattacaa	780
ttccaaggac	acttgatggc	cggttacagg	tccacggaag	aaaagggttc	cctcacgtag	840
tctatggcaa	actgtggagg	tttaatgaaa	tgacaaaaaa	cgaaacgcgt	catgtggacc	900
actgcaagca	cgcatttgaa	atgaaaagtg	acatgggatg	cgtgaatccc	tatcactacg	960
aaattgtcat	tggaactatg	attgttgggc	agagggatca	tgacaatcga	gatatgccgc	1020
cgccacatca	acgctaccac	actccaggtc	ggcaggatcc	agttgacgat	atgagtagat	1080
ttataccacc	agcttccatt	cgtccgcctc	cgatgaacat	gcacacaagg	cctcagccta	1140
tgcctcaaca	attgccttca	gttggcgcaa	cgtttgccca	tcctctccca	catcaggcgc	1200
cacataaccc	aggggtttca	catccgtact	ccattgctcc	acagacccat	taccggttga	1260
acatgaaccc	aattccgcaa	atgccgcaa	tgccacaaat	gccaccacct	ctccatcagg	1320
gatatggaat	gaatgggccc	agttgctctt	cagaaaacaa	caatccattc	cacaaaaatc	1380
accattataa	tgatattagc	catccaaatc	actattccta	cgactgtggg	ccgaacttgt	1440
acgggtttcc	aactccttat	ccggattttc	accatccttt	caatcagcaa	ccacaccagc	1500
cgccacaact	atcacaaaaa	catacgtccc	aacaaggcag	tcacaaacca	gggcaccaag	1560
gtcagggtacc	gaatgatcca	ccaatttcaa	gaccagtgtt	acaaccatca	acagtcacct	1620
tggacgtggt	ccgtcgggtac	tgtagacaga	catttggaaa	tcgatttttt	gaaggagaaa	1680
gtgaacaatc	cggcgcaata	attcgggtcta	gtaacaaatt	cattgaagaa	tttgattcgc	1740
cgatttgtgg	tgtgacagtt	gttcgaccgc	ggatgacaga	cgggtgagggt	ttggagaaca	1800
tcacgcccga	agatgcacca	tatcatgaca	tttgcaagtt	catttttgagg	ctcacatcag	1860
aaagtgtaac	tttctcagga	gaggggcccag	aagttagtga	tttgaacgaa	aaatggggaa	1920
caattgtgta	ctatgagaaa	aatttgcaaa	ttggcgagaa	aaaatgttcg	agaggaaatt	1980
tccacgtgga	tggcggaattc	atttgcctctg	agaatcgtaa	cagtctcggg	cttgagccaa	2040
atccaattag	agaaccagtg	gcgttttaaag	ttcgtaaagc	aatagtggat	ggaattcgct	2100
tttcttacia	aaaagacggg	agtgtttggc	ttcaaaaccg	catgaagtac	ccggtatttg	2160
tcacttctgg	gtatctcgac	gagcaatcag	gaggcctaaa	gaaggataaa	gtgcacaaag	2220
tttacgggat	tgcgtctatc	aaaacgtttg	gcttcaacgt	ttccaaacaa	atcatcagag	2280
acgcgcttct	ttccaagcaa	atggcaacaa	tgtacttgca	aggaaaattg	actccgatga	2340
attatatcta	cgagaagaag	actcaggaag	agctgcgaag	ggaagcaaca	cgcaccactg	2400
attcattggc	caagtactgt	tgtgtccgtg	tctcgttctg	caaaggattt	ggagaagcat	2460
accagaacg	cccgtaatt	catgattgtc	cagtttggtg	tgagttgaaa	atcaacattg	2520
cctacgattt	catggattca	atctgccagt	acataaccaa	ctgcttcgag	ccgctaggaa	2580
tggaaagattt	tgcaaaattg	ggaatcaacg	tcagtgtatg	ctaaatgata	acttttttca	2640
ctcacccctac	tagatactga	tttagtctta	ttccaaatca	tccaacgata	tcaaactttt	2700
tcctttggaac	tttgcatact	atgttatcac	aagttccaag	cagtttcaat	acaaacatag	2760
gatatgttaa	caacttttga	taagaatcaa	gttaccaact	gttcattgtg	agctttgagc	2820
tgtatagaag	gacaatgtat	cccatacctc	aatctttaat	agtcatcagt	cactgggtccc	2880
gcaccaattt	tttcgattcg	catatgtcat	atattgcacc	gtggcccttt	ttattgtaac	2940
ttttaatata	ttttcttccc	aacttgtgaa	tatgattgat	gaaccaccat	tttgagtaat	3000
aaatgtattt	tttgtggg					3017

<210> 53  
 <211> 3119  
 <212> DNA  
 <213> Caenorhabditis elegans

<400> 53						
gtaatcaaat	tgtaaaggaa	aaatattaat	agtcagagta	cacataaatg	ggtgatcatc	60
ataatttaac	gggccttccc	ggtacctcca	tcccgccaca	gttcaactat	tctcagcccg	120
gtaccagcac	cggaggcccc	ctttatggtg	gaaaaccttc	tcacggattg	gaagatattc	180
ctgatgtaga	ggaatatgag	aggaacctgc	tcggggcttg	agcagggttt	aatctgctca	240
atgtaggaaa	tatggctaata	gaatttaaac	caataatcac	attggacacg	aaaccacctc	300
gtgatgccaa	caagtcattg	gcattcaatg	gcgggttgaa	gctaatact	ccgaaaactg	360
aagttcccga	cgagcacaca	ccgatgatgt	caccagtga	tacaactaca	aagattctac	420
aacggagtgg	tattaaaatg	gaaatcccgc	catatttgga	tccagacagt	caggatgatg	480
accgggaaga	tgggtgtcaac	taccgggatc	cagattttatt	tgacacaaaa	aacacaaata	540
tgaccgagta	cgatttggat	gtgttgaaag	ttggaaaacc	agcagtagat	gaagcacgga	600
aaaagatcga	agttcccgcg	gctagtgcgc	cgccaaacaa	aattgtagaa	tatttgatgt	660

attatagaac	gttaaaagaa	agtgaactca	tacaactgaa	tgcgtatcgg	acaaaacgaa	720
atcgattatc	gttgaaacttg	gtcaaaaaaca	atattgatcg	agagttcgac	caaaaagctt	780
gcgagtcctt	ggtgaaaaaa	ttgaaggata	agaagaatga	tctccagaac	ctgattgatg	840
tggttctttc	aaaaggtaca	aaatataccg	gttgacattac	aattccaagg	acacttgatg	900
gccggttaca	ggtccacgga	agaaaagggt	tccctcacgt	agtctatggc	aaactgtgga	960
ggtttaatga	aatgacaaaa	aacgaaacgc	gtcatgtgga	ccactgcaag	cacgcatttg	1020
aaatgaaaag	tgacatggta	tgcgtgaatc	cctatcacta	cgaaattgtc	attggaacta	1080
tgattgttgg	gcagagggat	catgacaatc	gagatatgcc	gccgccacat	caacgctacc	1140
acactccagg	tcggcaggat	ccagttgacg	atatgagtag	atttatacca	ccagcttcca	1200
ttcgtccgcg	tccgatgaac	atgcacacaa	ggcctcagcc	tatgcctcaa	caattgcctt	1260
cagttggcgc	aacgtttggc	catcctctcc	cacatcaggc	gccacataac	ccaggggttt	1320
cacatccgta	ctccattgct	ccacagaccc	attaccggtt	gaacatgaac	ccaattccgc	1380
aaatgccgca	aatgccacaa	atgccaccac	ctctccatca	gggatatgga	atgaatgggc	1440
cgagttgctc	ttcagaaaaa	aacaatccat	tccacaaaaa	tcaccattat	aatgatatta	1500
gccatccaaa	tcactattcc	tacgactgtg	gtccgaactt	gtacgggttt	ccaactcctt	1560
atccggattt	tcaccatcct	ttcaatcagc	aaccacacca	gccgccacaa	ctatcacaaa	1620
accatacgtc	ccaacaaggc	agtcatcaac	cagggcacca	aggtcaggta	ccgaatgac	1680
caccaatttc	aagaccagtg	ttacaaccat	caacagtcac	cttgagcgtg	ttccgtcggt	1740
actgtagaca	gacatttgga	aatcgatttt	ttgaaggaga	aagtgaacaa	tccggcgcaa	1800
taattcggtc	tagtaacaaa	ttcattgaag	aatttggattc	gccgatttgt	ggtgtgacag	1860
ttgttcgacc	gcggatgaca	gacggtgagg	ttttggagaa	catcatgccg	gaagatgcac	1920
catatcatga	catttgcaag	ttcattttga	ggctcacatc	agaaagtgtg	actttctcag	1980
gagagggggc	agaagttagt	gatttgaacg	aaaaatgggg	aacaattgtg	tactatgaga	2040
aaaatttgca	aattggcgag	aaaaaatgtt	cgagaggaaa	tttccacgtg	gatggcggat	2100
tcatttgctc	tgagaatcgt	tacagtctcg	gacttgagcc	aaatccaatt	agagaaccag	2160
tggcgtttta	agttcgtaaa	gcaatagtgg	atggaattcg	cttttcctac	aaaaaagacg	2220
ggagtgtttg	gcttcaaaaac	cgcatagaat	acccggtatt	tgtcacttct	gggtatctcg	2280
acgagcaatc	aggaggccta	aagaaggata	aagtgcacaa	agtttacgga	tgtgcgtcta	2340
tcaaaaacgtt	tggcttcaac	gtttccaaaac	aaatcatcag	agacgcgctt	ctttccaagc	2400
aaatggcaac	aatgtacttg	caaggaaaat	tgactccgat	gaattatata	tacgagaaga	2460
agactcagga	agagctgcga	agggaaagcaa	cacgcaccac	tgattcattg	gccaagtact	2520
gttgtgtccg	tgtctcgttc	tgcaaaggat	ttggagaagc	ataccagaaa	cgcccgtcaa	2580
ttcatgattg	tccagtttgg	attgagttga	aaatcaacat	tgcctacgat	ttcatggatt	2640
caatctgccca	gtacataacc	aactgcttcg	agccgctagg	aatggaagat	tttgcaaaaat	2700
tgggaaatcaa	cgtcagtgat	gactaaatga	taactttttt	cactcaccct	actagatact	2760
gatttagtct	tattccaaat	catccaacga	tatcaaaact	tttcttttga	actttgcata	2820
ctatgttatc	acaagttcca	agcagtttca	atacaaacat	aggatatgtt	aacaactttt	2880
gataagaatc	aagttaccaa	ctgttcattg	tgagctttga	gctgtataga	aggacaatgt	2940
atcccatacc	tcaatcttta	atagtcatca	gtcactggtc	ccgcaccaat	tttttcgatt	3000
cgcatatgtc	atatattgca	ccgtggccct	ttttattgta	acttttaata	tattttcttc	3060
ccaacttgtg	aatatgattg	atgaaccacc	attttgagta	ataaatgtat	tttttgtgg	3119

<210> 54

<211> 103

<212> PRT

<213> Caenorhabditis elegans

<400> 54

Lys	Lys	Thr	Thr	Thr	Arg	Arg	Asn	Ala	Trp	Gly	Asn	Met	Ser	Tyr	Ala
1				5					10					15	
Glu	Leu	Ile	Thr	Thr	Ala	Ile	Met	Ala	Ser	Pro	Glu	Lys	Arg	Leu	Thr
			20					25					30		
Leu	Ala	Gln	Val	Tyr	Glu	Trp	Met	Val	Gln	Asn	Val	Pro	Tyr	Phe	Arg
		35					40					45			
Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly	Trp	Lys	Asn	Ser	Ile	Arg
	50					55					60				
His	Asn	Leu	Ser	Leu	His	Ser	Arg	Phe	Met	Arg	Ile	Gln	Asn	Glu	Gly
65					70					75				80	
Ala	Gly	Lys	Ser	Ser	Trp	Trp	Val	Ile	Asn	Pro	Asp	Ala	Lys	Pro	Gly

Met Asn Pro Arg Arg Thr Arg  
100

85

90

95

<210> 55  
<211> 41  
<212> PRT  
<213> Caenorhabditis elegans

<400> 55  
Thr Phe Met Asn Thr Pro Asp Asp Val Met Met Asn Asp Asp Met Glu  
1 5 10 15  
Pro Ile Pro Arg Asp Arg Cys Asn Thr Trp Pro Met Arg Arg Pro Gln  
20 25 30  
Leu Glu Pro Pro Leu Asn Ser Ser Pro  
35 40

<210> 56  
<211> 109  
<212> PRT  
<213> Caenorhabditis elegans

<400> 56  
Asp Asp Thr Val Ser Gly Lys Lys Thr Thr Thr Arg Arg Asn Ala Trp  
1 5 10 15  
Gly Asn Met Ser Tyr Ala Glu Leu Ile Thr Thr Ala Ile Met Ala Ser  
20 25 30  
Pro Glu Lys Arg Leu Thr Leu Ala Gln Val Tyr Glu Trp Met Val Gln  
35 40 45  
Asn Val Pro Tyr Phe Arg Asp Lys Gly Asp Ser Asn Ser Ser Ala Gly  
50 55 60  
Trp Lys Asn Ser Ile Arg His Asn Leu Ser Leu His Ser Arg Phe Met  
65 70 75 80  
Arg Ile Gln Asn Glu Gly Ala Gly Lys Ser Ser Trp Trp Val Ile Asn  
85 90 95  
Pro Asp Ala Lys Pro Gly Met Asn Pro Arg Arg Thr Arg  
100 105

<210> 57  
<211> 655  
<212> PRT  
<213> Homo sapiens

<400> 57  
Met Ala Glu Ala Pro Gln Val Val Glu Ile Asp Pro Asp Phe Glu Pro  
1 5 10 15  
Leu Pro Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Pro Glu Phe  
20 25 30  
Ser Gln Ser Asn Ser Ala Thr Ser Ser Pro Ala Pro Ser Gly Ser Ala  
35 40 45  
Ala Ala Asn Pro Asp Ala Ala Ala Gly Leu Pro Ser Ala Ser Ala Ala  
50 55 60  
Ala Val Ser Ala Asp Phe Met Ser Asn Leu Ser Leu Leu Glu Glu Ser  
65 70 75 80  
Glu Asp Phe Pro Gln Ala Pro Gly Ser Val Ala Ala Ala Val Ala Ala  
85 90 95

Ala	Ala	Ala	Ala	Ala	Ala	Thr	Gly	Gly	Leu	Cys	Gly	Asp	Phe	Gln	Gly
			100					105					110		
Pro	Glu	Ala	Gly	Cys	Leu	His	Pro	Ala	Pro	Pro	Gln	Pro	Pro	Pro	Pro
		115					120					125			
Gly	Pro	Val	Ser	Gln	His	Pro	Pro	Val	Pro	Pro	Ala	Ala	Ala	Gly	Pro
	130					135					140				
Leu	Ala	Gly	Gln	Pro	Arg	Lys	Ser	Ser	Ser	Ser	Arg	Arg	Asn	Ala	Trp
145					150					155					160
Gly	Asn	Leu	Ser	Tyr	Ala	Asp	Leu	Ile	Thr	Lys	Ala	Ile	Glu	Ser	Ser
				165				170					175		
Ala	Glu	Lys	Arg	Leu	Thr	Leu	Ser	Gln	Ile	Tyr	Glu	Trp	Met	Val	Lys
			180					185					190		
Ser	Val	Pro	Tyr	Phe	Lys	Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly
	195						200					205			
Trp	Lys	Asn	Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	His	Ser	Lys	Phe	Ile
	210					215					220				
Arg	Val	Gln	Asn	Glu	Gly	Thr	Gly	Lys	Ser	Ser	Trp	Trp	Met	Leu	Asn
225					230					235					240
Pro	Glu	Gly	Gly	Lys	Ser	Gly	Lys	Ser	Pro	Arg	Arg	Arg	Ala	Ala	Ser
				245					250					255	
Met	Asp	Asn	Asn	Ser	Lys	Phe	Ala	Lys	Ser	Arg	Ser	Arg	Ala	Ala	Lys
			260					265					270		
Lys	Lys	Ala	Ser	Leu	Gln	Ser	Gly	Gln	Glu	Gly	Ala	Gly	Asp	Ser	Pro
	275						280					285			
Gly	Ser	Gln	Phe	Ser	Lys	Trp	Pro	Ala	Ser	Pro	Gly	Ser	His	Ser	Asn
	290					295					300				
Asp	Asp	Phe	Asp	Asn	Trp	Ser	Thr	Phe	Arg	Pro	Arg	Thr	Ser	Ser	Asn
305					310					315					320
Ala	Ser	Thr	Ile	Ser	Gly	Arg	Leu	Ser	Pro	Ile	Met	Thr	Glu	Gln	Asp
				325					330					335	
Asp	Leu	Gly	Glu	Gly	Asp	Val	His	Ser	Met	Val	Tyr	Pro	Pro	Ser	Ala
			340					345					350		
Ala	Lys	Met	Ala	Ser	Thr	Leu	Pro	Ser	Leu	Ser	Glu	Ile	Ser	Asn	Pro
		355					360					365			
Glu	Asn	Met	Glu	Asn	Leu	Leu	Asp	Asn	Leu	Asn	Leu	Leu	Ser	Ser	Pro
	370					375					380				
Thr	Ser	Leu	Thr	Val	Ser	Thr	Gln	Ser	Ser	Pro	Gly	Thr	Met	Met	Gln
385					390					395					400
Gln	Thr	Pro	Cys	Tyr	Ser	Phe	Ala	Pro	Pro	Asn	Thr	Ser	Leu	Asn	Ser
				405					410					415	
Pro	Ser	Pro	Asn	Tyr	Gln	Lys	Tyr	Thr	Tyr	Gly	Gln	Ser	Ser	Met	Ser
			420					425					430		
Pro	Leu	Pro	Gln	Met	Pro	Ile	Gln	Thr	Leu	Gln	Asp	Asn	Lys	Ser	Ser
		435				440					445				
Tyr	Gly	Gly	Met	Ser	Gln	Tyr	Asn	Cys	Ala	Pro	Gly	Leu	Leu	Lys	Glu
	450					455				460					
Leu	Leu	Thr	Ser	Asp	Ser	Pro	Pro	His	Asn	Asp	Ile	Met	Thr	Pro	Val
465					470					475					480
Asp	Pro	Gly	Val	Ala	Gln	Pro	Asn	Ser	Arg	Val	Leu	Gly	Gln	Asn	Val
				485					490					495	
Met	Met	Gly	Pro	Asn	Ser	Val	Met	Ser	Thr	Tyr	Gly	Ser	Gln	Ala	Ser
			500					505					510		
His	Asn	Lys	Met	Met	Asn	Pro	Ser	Ser	His	Thr	His	Pro	Gly	His	Ala
		515					520					525			
Gln	Gln	Thr	Ser	Ala	Val	Asn	Gly	Arg	Pro	Leu	Pro	His	Thr	Val	Ser
	530					535					540				
Thr	Met	Pro	His	Thr	Ser	Gly	Met	Asn	Arg	Leu	Thr	Gln	Val	Lys	Thr
545					550					555					560
Pro	Val	Gln	Val	Pro	Leu	Pro	His	Pro	Met	Gln	Met	Ser	Ala	Leu	Gly

				565					570				575			
Gly	Tyr	Ser	Ser	Val	Ser	Ser	Cys	Asn	Gly	Tyr	Gly	Arg	Met	Gly	Leu	
			580					585					590			
Leu	His	Gln	Glu	Lys	Leu	Pro	Ser	Asp	Leu	Asp	Gly	Met	Phe	Ile	Glu	
		595					600					605				
Arg	Leu	Asp	Cys	Asp	Met	Glu	Ser	Ile	Ile	Arg	Asn	Asp	Leu	Met	Asp	
	610					615					620					
Gly	Asp	Thr	Leu	Asp	Phe	Asn	Phe	Asp	Asn	Val	Leu	Pro	Asn	Gln	Ser	
625				630						635					640	
Phe	Pro	His	Ser	Val	Lys	Thr	Thr	Thr	His	Ser	Trp	Val	Ser	Gly		
				645					650					655		

<210> 58  
 <211> 98  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 58

Lys	Pro	Asn	Pro	Trp	Gly	Glu	Glu	Ser	Tyr	Ser	Asp	Ile	Ile	Ala	Lys	
1				5					10					15		
Ala	Leu	Glu	Ser	Ala	Pro	Asp	Gly	Arg	Leu	Lys	Leu	Asn	Glu	Ile	Tyr	
		20					25						30			
Gln	Trp	Phe	Ser	Asp	Asn	Ile	Pro	Tyr	Phe	Gly	Glu	Arg	Ser	Ser	Pro	
	35					40						45				
Glu	Glu	Ala	Ala	Gly	Trp	Lys	Asn	Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	
	50					55					60					
His	Ser	Arg	Phe	Met	Arg	Ile	Gln	Asn	Glu	Gly	Ala	Gly	Lys	Ser	Ser	
65				70						75					80	
Trp	Trp	Val	Ile	Asn	Pro	Asp	Ala	Lys	Pro	Gly	Met	Asn	Pro	Arg	Arg	
				85					90					95		

Thr Arg

<210> 59  
 <211> 7  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 59  
 Trp Lys Asn Ser Ile Arg His  
 1 5

<210> 60  
 <211> 121  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 60

Gln	Val	Leu	Asp	Asp	His	Asp	Tyr	Gly	Arg	Cys	Val	Asp	Trp	Trp	Gly	
1				5					10					15		
Val	Gly	Val	Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr	
		20					25						30			
Ser	Lys	Asp	His	Asn	Lys	Leu	Phe	Glu	Leu	Ile	Met	Ala	Gly	Asp	Leu	
	35					40						45				
Arg	Phe	Pro	Ser	Lys	Leu	Ser	Gln	Glu	Ala	Arg	Thr	Leu	Leu	Thr	Gly	
	50					55					60					

Leu	Leu	Val	Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Pro	Glu	Asp
65					70					75					80
Ala	Leu	Glu	Ile	Cys	Arg	Ala	Asp	Phe	Phe	Arg	Thr	Val	Asp	Trp	Glu
			85						90					95	
Ala	Thr	Tyr	Arg	Lys	Glu	Ile	Glu	Pro	Pro	Tyr	Lys	Pro	Asn	Val	Gln
			100					105					110		
Ser	Glu	Thr	Asp	Thr	Ser	Tyr	Phe	Asp							
		115						120							

<210> 61  
 <211> 66  
 <212> PRT  
 <213> Caenorhabditis elegans

Thr	Met	Glu	Asp	Phe	Asp	Phe	Leu	Lys	Val	Leu	Gly	Lys	Gly	Thr	Phe
1				5					10					15	
Gly	Lys	Val	Ile	Leu	Cys	Lys	Glu	Lys	Arg	Thr	Gln	Lys	Leu	Tyr	Ala
			20					25					30		
Ile	Lys	Ile	Leu	Lys	Lys	Asp	Val	Ile	Ile	Ala	Arg	Glu	Glu	Val	Ala
		35				40						45			
His	Thr	Leu	Thr	Glu	Asn	Arg	Val	Leu	Gln	Arg	Cys	Lys	His	Pro	Phe
	50					55					60				
Leu	Thr														
65															

<210> 62  
 <211> 45  
 <212> PRT  
 <213> Caenorhabditis elegans

Lys	Leu	Glu	Asn	Leu	Leu	Leu	Asp	Lys	Asp	Gly	His	Ile	Lys	Ile	Ala
1				5					10					15	
Asp	Phe	Gly	Leu	Cys	Lys	Glu	Glu	Ile	Ser	Phe	Gly	Asp	Lys	Thr	Ser
			20					25					30		
Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val			
		35					40					45			

<210> 63  
 <211> 57  
 <212> PRT  
 <213> Caenorhabditis elegans

Tyr	Phe	Gln	Glu	Leu	Lys	Tyr	Ser	Phe	Gln	Glu	Gln	His	Tyr	Leu	Cys
1				5					10					15	
Phe	Val	Met	Gln	Phe	Ala	Asn	Gly	Gly	Glu	Leu	Phe	Thr	His	Val	Arg
			20					25					30		
Lys	Cys	Gly	Thr	Phe	Ser	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Gly	Ala	Glu
		35					40					45			
Ile	Val	Leu	Ala	Leu	Gly	Tyr	Leu	His							
		50				55									

<210> 64

<211> 59  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 64  
 Ser Thr Phe Ala Ile Phe Tyr Phe Gln Thr Met Leu Phe Glu Lys Pro  
 1 5 10 15  
 Arg Pro Asn Met Phe Met Val Arg Cys Leu Gln Trp Thr Thr Val Ile  
 20 25 30  
 Glu Arg Thr Phe Tyr Ala Glu Ser Ala Glu Val Arg Gln Arg Trp Ile  
 35 40 45  
 His Ala Ile Glu Ser Ile Ser Lys Lys Tyr Lys  
 50 55

<210> 65  
 <211> 33  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 65  
 Leu Gln Glu Leu Lys Tyr Ser Phe Gln Thr Asn Asp Arg Leu Cys Phe  
 1 5 10 15  
 Val Met Glu Phe Ala Ile Gly Gly Asp Leu Tyr Tyr His Leu Asn Arg  
 20 25 30  
 Glu

<210> 66  
 <211> 21  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 66  
 Val Val Ile Glu Gly Trp Leu His Lys Lys Gly Glu His Ile Arg Asn  
 1 5 10 15  
 Trp Arg Pro Arg Phe  
 20

<210> 67  
 <211> 26  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 67  
 Phe Ser Glu Pro Arg Ala Arg Phe Tyr Gly Ser Glu Ile Val Leu Ala  
 1 5 10 15  
 Leu Gly Tyr Leu His Ala Asn Ser Ile Val  
 20 25

<210> 68  
 <211> 39  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 68

Ile Arg Val Ser Phe Cys Lys Gly Phe Gly Glu Thr Tyr Ser Arg Leu  
 1 5 10 15  
 Lys Val Val Asn Leu Pro Cys Trp Ile Glu Ile Ile Leu His Glu Pro  
 20 25 30  
 Ala Asp Glu Tyr Asp Thr Val  
 35

<210> 69  
 <211> 45  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 69  
 Ser Arg Asn Ser Lys Ser Ser Gln Ile Arg Asn Thr Val Gly Ala Gly  
 1 5 10 15  
 Ile Gln Leu Ala Tyr Glu Asn Gly Glu Leu Trp Leu Thr Val Leu Thr  
 20 25 30  
 Asp Gln Ile Val Phe Val Gln Cys Pro Phe Leu Asn Gln  
 35 40 45

<210> 70  
 <211> 29  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 70  
 Asn Glu Met Leu Asp Pro Glu Pro Lys Tyr Pro Lys Glu Glu Lys Pro  
 1 5 10 15  
 Trp Cys Thr Ile Phe Tyr Tyr Glu Leu Thr Val Arg Val  
 20 25

<210> 71  
 <211> 29  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 71  
 Gln Leu Gly Lys Ala Phe Glu Ala Lys Val Pro Thr Ile Thr Ile Asp  
 1 5 10 15  
 Gly Ala Thr Gly Ala Ser Asp Glu Cys Arg Met Ser Leu  
 20 25

<210> 72  
 <211> 105  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 72  
 Ser Pro Asp Asp Gly Leu Leu Asp Ser Ser Glu Glu Ser Arg Arg Arg  
 1 5 10 15  
 Gln Lys Thr Cys Arg Val Cys Gly Asp His Ala Thr Gly Tyr Asn Phe  
 20 25 30  
 Asn Val Ile Thr Cys Glu Ser Cys Lys Ala Phe Phe Arg Arg Asn Ala  
 35 40 45  
 Leu Arg Pro Lys Glu Phe Lys Cys Pro Tyr Ser Glu Asp Cys Glu Ile



50		55		60
Asn Ser Val Ser Arg Arg Phe Cys Gln Lys Cys Arg Leu Arg Lys Cys				
65		70		75
Phe Thr Val Gly Met Lys Lys Glu Trp Ile Leu Asn Glu Glu Gln Leu				80
	85		90	95
Arg Arg Arg Lys Asn Ser Arg Leu Asn				
	100		105	

<210> 73  
 <211> 89  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 73
Leu Asp Ser Ser Glu Glu Ser Arg Arg Arg Gln Lys Thr Cys Arg Val
1 5 10 15
Cys Gly Asp His Ala Thr Gly Tyr Asn Phe Asn Val Ile Thr Cys Glu
20 25 30
Ser Cys Lys Ala Phe Phe Arg Arg Asn Ala Leu Arg Pro Lys Glu Phe
35 40 45
Lys Cys Pro Tyr Ser Glu Asp Cys Glu Ile Asn Ser Val Ser Arg Arg
50 55 60
Phe Cys Gln Lys Cys Arg Leu Arg Lys Cys Phe Thr Val Gly Met Lys
65 70 75 80
Lys Glu Trp Ile Leu Asn Glu Glu Gln
85

<210> 74  
 <211> 73  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 74
Asp Ile Met Asn Ile Met Asp Val Thr Met Arg Arg Phe Val Lys Val
1 5 10 15
Ala Lys Gly Val Pro Ala Phe Arg Glu Val Ser Gln Glu Gly Lys Phe
20 25 30
Ser Leu Leu Lys Gly Gly Met Ile Glu Met Leu Thr Val Arg Gly Val
35 40 45
Thr Arg Tyr Asp Ala Ser Thr Asn Ser Phe Lys Thr Pro Thr Ile Lys
50 55 60
Gly Gln Asn Val Ser Val Asn Val Asp
65 70

<210> 75  
 <211> 112  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 75
Ser Gly Ser Leu Val Asp Leu Met Ile Lys Asn Leu Thr Ala Tyr Thr
1 5 10 15
Gln Gly Leu Asn Glu Thr Val Lys Asn Arg Thr Ala Glu Leu Glu Lys
20 25 30
Glu Gln Glu Lys Gly Asp Gln Leu Leu Met Glu Leu Leu Pro Lys Ser
35 40 45

Val Ala Asn Asp Leu Lys Asn Gly Ile Ala Val Asp Pro Lys Val Tyr  
50 55 60  
Glu Asn Ala Thr Ile Leu Tyr Ser Asp Ile Val Gly Phe Thr Ser Leu  
65 70 75 80  
Cys Ser Gln Ser Gln Pro Met Glu Val Val Thr Leu Leu Ser Gly Met  
85 90 95  
Tyr Gln Arg Phe Asp Leu Ile Ile Ser Gln Gln Gly Gly Tyr Lys Val  
100 105 110

<210> 76  
<211> 107  
<212> PRT  
<213> Caenorhabditis elegans

<400> 76  
Met Glu Thr Ile Gly Asp Ala Tyr Cys Val Ala Ala Gly Leu Pro Val  
1 5 10 15  
Val Met Glu Lys Asp His Val Lys Ser Ile Cys Met Ile Ala Leu Leu  
20 25 30  
Gln Arg Asp Cys Leu His His Phe Glu Ile Pro His Arg Pro Gly Thr  
35 40 45  
Phe Leu Asn Cys Arg Trp Gly Phe Asn Ser Gly Pro Val Phe Ala Gly  
50 55 60  
Val Ile Gly Gln Lys Ala Pro Arg Tyr Ala Cys Phe Gly Glu Ala Val  
65 70 75 80  
Ile Leu Ala Ser Lys Met Glu Ser Ser Gly Val Glu Asp Arg Ile Gln  
85 90 95  
Met Thr Leu Ala Ser Gln Gln Leu Leu Glu Glu  
100 105

<210> 77  
<211> 43  
<212> PRT  
<213> Caenorhabditis elegans

<400> 77  
Asp Ile Leu Lys Gly Leu Glu Tyr Ile His Ala Ser Ala Ile Asp Phe  
1 5 10 15  
His Gly Asn Leu Thr Leu His Asn Cys Met Leu Asp Ser His Trp Ile  
20 25 30  
Val Lys Leu Ser Gly Phe Gly Val Asn Arg Leu  
35 40

<210> 78  
<211> 15  
<212> PRT  
<213> Caenorhabditis elegans

<400> 78  
Asp Met Tyr Ser Phe Gly Val Ile Leu His Glu Ile Ile Leu Lys  
1 5 10 15

<210> 79  
<211> 67  
<212> PRT

<213> Caenorhabditis elegans

<400> 79

```
Ala Ile Lys Ile Asn Val Asp Asp Pro Ala Ser Thr Glu Asn Leu Asn
 1           5           10           15
Tyr Leu Met Glu Ala Asn Ile Met Lys Asn Phe Lys Thr Asn Phe Ile
      20           25           30
Val Gln Leu Tyr Gly Val Ile Ser Thr Val Gln Pro Ala Met Val Val
      35           40           45
Met Glu Met Met Asp Leu Gly Asn Leu Arg Asp Tyr Leu Arg Ser Lys
 50           55           60
Arg Glu Asp
65
```

<210> 80

<211> 54

<212> PRT

<213> Caenorhabditis elegans

<400> 80

```
Val Ile Lys Lys Pro Glu Cys Cys Glu Asn Tyr Trp Tyr Lys Val Met
 1           5           10           15
Lys Met Cys Trp Arg Tyr Ser Pro Arg Asp Arg Pro Thr Phe Leu Gln
      20           25           30
Leu Val His Leu Leu Ala Ala Glu Ala Ser Pro Glu Phe Arg Asp Leu
      35           40           45
Ser Phe Val Leu Thr Asp
50
```

<210> 81

<211> 69

<212> PRT

<213> Caenorhabditis elegans

<400> 81

```
Lys Gln Asp Ser Gly Met Ala Ser Glu Leu Lys Asp Ile Phe Ala Asn
 1           5           10           15
Ile His Thr Ile Thr Gly Tyr Leu Leu Val Arg Gln Ser Ser Pro Phe
      20           25           30
Ile Ser Leu Asn Met Phe Arg Asn Leu Arg Arg Ile Glu Ala Lys Ser
      35           40           45
Leu Phe Arg Asn Leu Tyr Ala Ile Thr Val Phe Glu Asn Pro Asn Leu
 50           55           60
Lys Lys Leu Phe Asp
65
```

<210> 82

<211> 52

<212> PRT

<213> Caenorhabditis elegans

<400> 82

```
Phe Pro His Leu Arg Glu Ile Thr Gly Thr Leu Leu Val Phe Glu Thr
 1           5           10           15
Glu Gly Leu Val Asp Leu Arg Lys Ile Phe Pro Asn Leu Arg Val Ile
      20           25           30
```

Gly Gly Arg Ser Leu Ile Gln His Tyr Ala Leu Ile Ile Tyr Arg Asn  
           35                  40                  45  
 Pro Asp Leu Glu  
           50

<210> 83  
 <211> 46  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 83  
 Glu Ile Gly Leu Asp Lys Leu Ser Val Ile Arg Asn Gly Gly Val Arg  
   1                  5                  10                  15  
 Ile Ile Asp Asn Arg Lys Leu Cys Tyr Thr Lys Thr Ile Asp Trp Lys  
           20                  25                  30  
 His Leu Ile Thr Ser Ser Ile Asn Asp Val Val Val Asp Asn  
           35                  40                  45

<210> 84  
 <211> 36  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 84  
 Tyr Asn Ala Asp Asp Trp Glu Leu Arg Gln Asp Asp Val Val Leu Gly  
   1                  5                  10                  15  
 Gln Gln Cys Gly Glu Gly Ser Phe Gly Lys Val Tyr Leu Gly Thr Gly  
           20                  25                  30  
 Asn Asn Val Val  
           35

<210> 85  
 <211> 24  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 85  
 Asp Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys Lys Gly  
   1                  5                  10                  15  
 Phe Gly Glu Ala Tyr Pro Glu Arg  
           20

<210> 86  
 <211> 13  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 86  
 Gly Trp Asp Trp Ile Val Ala Pro Pro Arg Tyr Asn Ala  
   1                  5                  10

<210> 87  
 <211> 121  
 <212> PRT

<213> Homo sapiens

<400> 87

Glu	Val	Leu	Glu	Asp	Asn	Asp	Tyr	Gly	Arg	Ala	Val	Asp	Trp	Trp	Gly	
1				5					10					15		
Leu	Gly	Val	Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr	
			20					25					30			
Asn	Gln	Asp	His	Glu	Lys	Leu	Phe	Glu	Leu	Ile	Leu	Met	Glu	Glu	Ile	
		35					40					45				
Arg	Phe	Pro	Arg	Thr	Leu	Gly	Pro	Glu	Ala	Lys	Ser	Leu	Leu	Ser	Gly	
	50					55					60					
Leu	Leu	Lys	Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Ser	Glu	Asp	
65					70					75					80	
Ala	Lys	Glu	Ile	Met	Gln	His	Arg	Phe	Phe	Ala	Asn	Ile	Val	Trp	Gln	
				85					90					95		
Asp	Val	Tyr	Glu	Lys	Lys	Leu	Ser	Pro	Pro	Phe	Lys	Pro	Gln	Val	Thr	
			100					105					110			
Ser	Glu	Thr	Asp	Thr	Arg	Tyr	Phe	Asp								
		115					120									

<210> 88

<211> 121

<212> PRT

<213> Caenorhabditis elegans

<400> 88

Gln	Val	Leu	Asp	Asp	His	Asp	Tyr	Gly	Arg	Cys	Val	Asp	Trp	Trp	Gly	
1				5					10					15		
Val	Gly	Val	Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr	
			20					25					30			
Ser	Lys	Asp	His	Asn	Lys	Leu	Phe	Glu	Leu	Ile	Met	Ala	Gly	Asp	Leu	
		35					40					45				
Arg	Phe	Pro	Ser	Lys	Leu	Ser	Gln	Glu	Ala	Arg	Thr	Leu	Leu	Thr	Gly	
	50					55					60					
Leu	Leu	Val	Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Pro	Glu	Asp	
65					70					75					80	
Ala	Leu	Glu	Ile	Cys	Arg	Ala	Asp	Phe	Phe	Arg	Thr	Val	Asp	Trp	Glu	
				85					90					95		
Ala	Thr	Tyr	Arg	Lys	Glu	Ile	Glu	Pro	Pro	Tyr	Lys	Pro	Asn	Val	Gln	
			100					105					110			
Ser	Glu	Thr	Asp	Thr	Ser	Tyr	Phe	Asp								
		115					120									

<210> 89

<211> 66

<212> PRT

<213> Homo sapiens

<400> 89

Thr	Met	Asn	Glu	Phe	Glu	Tyr	Leu	Lys	Leu	Leu	Gly	Lys	Gly	Thr	Phe	
1				5					10					15		
Gly	Lys	Val	Ile	Leu	Val	Lys	Glu	Lys	Ala	Thr	Gly	Arg	Tyr	Tyr	Ala	
			20					25					30			
Met	Lys	Ile	Leu	Lys	Lys	Glu	Val	Ile	Val	Ala	Lys	Asp	Glu	Val	Ala	
		35					40					45				
His	Thr	Leu	Thr	Glu	Asn	Arg	Val	Leu	Gln	Asn	Ser	Arg	His	Pro	Phe	
	50					55					60					

Leu Thr  
65

<210> 90  
<211> 66  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 90  
Thr Met Glu Asp Phe Asp Phe Leu Lys Val Leu Gly Lys Gly Thr Phe  
1 5 10 15  
Gly Lys Val Ile Leu Cys Lys Glu Lys Arg Thr Gln Lys Leu Tyr Ala  
20 25 30  
Ile Lys Ile Leu Lys Lys Asp Val Ile Ile Ala Arg Glu Glu Val Ala  
35 40 45  
His Thr Leu Thr Glu Asn Arg Val Leu Gln Arg Cys Lys His Pro Phe  
50 55 60  
Leu Thr  
65

<210> 91  
<211> 45  
<212> PRT  
<213> *Homo sapiens*

<400> 91  
Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr  
1 5 10 15  
Asp Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala Thr Met Lys  
20 25 30  
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val  
35 40 45

<210> 92  
<211> 45  
<212> PRT  
<213> *Caenorhabditis elegans*

<400> 92  
Lys Leu Glu Asn Leu Leu Leu Asp Lys Asp Gly His Ile Lys Ile Ala  
1 5 10 15  
Asp Phe Gly Leu Cys Lys Glu Glu Ile Ser Phe Gly Asp Lys Thr Ser  
20 25 30  
Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val  
35 40 45

<210> 93  
<211> 57  
<212> PRT  
<213> *Homo sapiens*

<400> 93  
Phe Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys  
1 5 10 15  
Phe Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser

```
<210> 94
<211> 57
<212> PRT
<213> Caenorhabditis elegans
```

```
<210> 95
<211> 59
<212> PRT
<213> Homo sapiens
```

```
<210> 96
<211> 59
<212> PRT
<213> Caenorhabditis elegans
```

```
<210> 97
<211> 33
<212> PRT
<213> Homo sapiens
```

<400> 97  
 Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His Asp Arg Leu Cys Phe  
 1 5 10 15  
 Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe Phe His Leu Ser Arg  
 20 25 30  
 Glu

<210> 98  
 <211> 33  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 98  
 Leu Gln Glu Leu Lys Tyr Ser Phe Gln Thr Asn Asp Arg Leu Cys Phe  
 1 5 10 15  
 Val Met Glu Phe Ala Ile Gly Gly Asp Leu Tyr Tyr His Leu Asn Arg  
 20 25 30  
 Glu

<210> 99  
 <211> 36  
 <212> PRT  
 <213> Homo sapiens or Caenorhabditis elegans

<400> 99  
 Lys Leu Glu Asn Leu Leu Asp Lys Asp Gly His Ile Lys Ile Asp Phe  
 1 5 10 15  
 Gly Leu Cys Lys Glu Ile Gly Thr Phe Cys Gly Thr Pro Glu Tyr Leu  
 20 25 30  
 Ala Pro Glu Val  
 35

<210> 100  
 <211> 37  
 <212> PRT  
 <213> Homo sapiens or Caenorhabditis elegans

<400> 100  
 Leu Lys Tyr Ser Phe Gln Leu Cys Phe Val Met Ala Asn Gly Gly Glu  
 1 5 10 15  
 Leu Phe His Phe Ser Glu Arg Ala Arg Phe Tyr Gly Ala Glu Ile Val  
 20 25 30  
 Ala Leu Tyr Leu His  
 35

<210> 101  
 <211> 29  
 <212> PRT  
 <213> Homo sapiens or Caenorhabditis elegans

<400> 101  
 Phe Gln Met Glu Pro Arg Pro Asn Phe Arg Cys Leu Gln Trp Thr Thr  
 1 5 10 15



Val Ile Glu Arg Thr Phe Glu Glu Arg Trp Ala Ile Lys  
 20 25

<210> 102  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens or Caenorhabditis elegans

<400> 102  
 Leu Leu Lys Tyr Ser Phe Gln Thr Asp Arg Leu Cys Phe Val Met Glu  
 1 5 10 15  
 Ala Gly Gly Leu His Leu Arg Glu  
 20

<210> 103  
 <211> 366  
 <212> PRT  
 <213> Homo sapiens

<400> 103  
 Arg Gly Ala Ile Arg Ile Glu Lys Asn Ala Asp Leu Cys Tyr Leu Ser  
 1 5 10 15  
 Thr Val Asp Trp Ser Leu Ile Leu Asp Ala Val Ser Asn Asn Tyr Ile  
 20 25 30  
 Val Gly Asn Lys Pro Pro Lys Glu Cys Gly Asp Leu Cys Pro Gly Thr  
 35 40 45  
 Met Glu Glu Lys Pro Met Cys Glu Lys Thr Thr Ile Asn Asn Glu Tyr  
 50 55 60  
 Asn Tyr Arg Cys Trp Thr Thr Asn Arg Cys Gln Lys Met Cys Pro Ser  
 65 70 75 80  
 Thr Cys Gly Lys Arg Ala Cys Thr Glu Asn Asn Glu Cys Cys His Pro  
 85 90 95  
 Glu Cys Leu Gly Ser Cys Ser Ala Pro Asp Asn Asp Thr Ala Cys Val  
 100 105 110  
 Ala Cys Arg His Tyr Tyr Tyr Ala Gly Val Cys Val Pro Ala Cys Pro  
 115 120 125  
 Pro Asn Thr Tyr Arg Phe Glu Gly Trp Arg Cys Val Asp Arg Asp Phe  
 130 135 140  
 Cys Ala Asn Ile Leu Ser Ala Glu Ser Ser Asp Ser Glu Gly Phe Val  
 145 150 155 160  
 Ile His Asp Gly Glu Cys Met Gln Glu Cys Pro Ser Gly Phe Ile Arg  
 165 170 175  
 Asn Gly Ser Gln Ser Met Tyr Cys Ile Pro Cys Glu Gly Pro Cys Pro  
 180 185 190  
 Lys Val Cys Glu Glu Glu Lys Lys Thr Lys Thr Ile Asp Ser Val Thr  
 195 200 205  
 Ser Ala Gln Met Leu Gln Gly Cys Thr Ile Phe Lys Gly Asn Leu Leu  
 210 215 220  
 Ile Asn Ile Arg Arg Gly Asn Asn Ile Ala Ser Glu Leu Glu Asn Phe  
 225 230 235 240  
 Met Gly Leu Ile Glu Val Val Thr Gly Tyr Val Lys Ile Arg His Ser  
 245 250 255  
 His Ala Leu Val Ser Leu Ser Phe Leu Lys Asn Leu Arg Leu Ile Leu  
 260 265 270  
 Gly Glu Glu Gln Leu Glu Gly Asn Tyr Ser Phe Tyr Val Leu Asp Asn  
 275 280 285  
 Gln Asn Leu Gln Gln Leu Trp Asp Trp Asp His Arg Asn Leu Thr Ile

290		295		300
Lys Ala Gly Lys Met Tyr Phe Ala Phe Asn Pro Lys Leu Cys Val Ser				
305		310		315
Glu Ile Tyr Arg Met Glu Glu Val Thr Gly Thr Lys Gly Arg Gln Ser				
	325		330	
Lys Gly Asp Ile Asn Thr Arg Asn Asn Gly Glu Arg Ala Ser Cys Glu				
	340		345	
Ser Asp Val Leu His Phe Thr Ser Thr Thr Thr Ser Lys Asn				
	355		360	365

<210> 104  
 <211> 370  
 <212> PRT  
 <213> Homo sapiens

<400> 104

Arg Gly Ser Val Arg Ile Glu Lys Asn Asn Glu Leu Cys Tyr Leu Ala				
1	5	10	15	
Thr Ile Asp Trp Ser Arg Ile Leu Asp Ser Val Glu Asp Asn Tyr Ile				
	20	25	30	
Val Leu Asn Lys Asp Asp Asn Glu Cys Gly Asp Ile Cys Pro Gly				
	35	40	45	
Thr Ala Lys Gly Lys Thr Asn Cys Pro Ala Thr Val Ile Asn Gly Gln				
	50	55	60	
Phe Val Glu Arg Cys Trp Thr His Ser His Cys Gln Lys Val Cys Pro				
65	70	75	80	
Thr Ile Cys Lys Ser His Gly Cys Thr Ala Glu Gly Leu Cys Cys His				
	85	90	95	
Ser Glu Cys Leu Gly Asn Cys Ser Gln Pro Asp Asp Pro Thr Lys Cys				
	100	105	110	
Val Ala Cys Arg Asn Phe Tyr Leu Asp Gly Arg Cys Val Glu Thr Cys				
	115	120	125	
Pro Pro Pro Tyr Tyr His Phe Gln Asp Trp Arg Cys Val Asn Phe Ser				
	130	135	140	
Phe Cys Gln Asp Leu His His Lys Cys Lys Asn Ser Arg Arg Gln Gly				
145	150	155	160	
Cys His Gln Tyr Val Ile His Asn Asn Lys Cys Ile Pro Glu Cys Pro				
	165	170	175	
Ser Gly Tyr Thr Met Asn Ser Ser Asn Leu Leu Cys Thr Pro Cys Leu				
	180	185	190	
Gly Pro Cys Pro Lys Val Cys His Leu Leu Glu Gly Glu Lys Thr Ile				
	195	200	205	
Asp Ser Val Thr Ser Ala Gln Glu Leu Arg Gly Cys Thr Val Ile Asn				
	210	215	220	
Gly Ser Leu Ile Ile Asn Ile Arg Gly Gly Asn Asn Leu Ala Ala Glu				
225	230	235	240	
Leu Glu Ala Asn Leu Gly Leu Ile Glu Glu Ile Ser Gly Tyr Leu Lys				
	245	250	255	
Ile Arg Arg Ser Tyr Ala Leu Val Ser Leu Ser Phe Phe Arg Lys Leu				
	260	265	270	
Arg Leu Ile Arg Gly Glu Thr Leu Glu Ile Gly Asn Tyr Ser Phe Tyr				
	275	280	285	
Ala Leu Asp Asn Gln Asn Leu Arg Gln Leu Trp Asp Trp Ser Lys His				
	290	295	300	
Asn Leu Thr Ile Thr Gln Gly Lys Leu Phe Phe His Tyr Asn Pro Lys				
305	310	315	320	
Leu Cys Leu Ser Glu Ile His Lys Met Glu Glu Val Ser Gly Thr Lys				
	325	330	335	

Gly	Arg	Gln	Glu	Arg	Asn	Asp	Ile	Ala	Leu	Lys	Thr	Asn	Gly	Asp	Gln
			340					345					350		
Ala	Ser	Cys	Glu	Asn	Glu	Leu	Leu	Lys	Phe	Ser	Tyr	Ile	Arg	Thr	Ser
		355					360						365		
Phe	Asp														
	370														

<210> 105

<211> 383

<212> PRT

<213> Drosophila melanogaster

<400> 105

Arg	Gly	Gly	Val	Arg	Ile	Glu	Lys	Asn	His	Lys	Leu	Cys	Tyr	Asp	Arg
1				5					10					15	
Thr	Ile	Asp	Trp	Leu	Glu	Ile	Leu	Ala	Glu	Asn	Glu	Ser	Gln	Leu	Val
		20						25					30		
Val	Leu	Thr	Glu	Asn	Gly	Lys	Glu	Lys	Glu	Cys	Ser	Leu	Ser	Lys	Cys
		35					40					45			
Pro	Gly	Glu	Ile	Arg	Ile	Glu	Glu	Gly	His	Asp	Asn	Thr	Ala	Ile	Glu
	50					55				60					
Gly	Glu	Leu	Asn	Ala	Ser	Cys	Gln	Leu	His	Asn	Asn	Arg	Arg	Leu	Cys
65					70					75					80
Trp	Asn	Ser	Lys	Leu	Cys	Gln	Thr	Lys	Cys	Pro	Glu	Lys	Cys	Arg	Asn
			85					90						95	
Asn	Cys	Ile	Asp	Glu	His	Thr	Cys	Cys	Ser	Gln	Asp	Cys	Leu	Gly	Gly
			100					105					110		
Cys	Val	Ile	Asp	Lys	Asn	Gly	Asn	Glu	Ser	Cys	Ile	Ser	Cys	Arg	Asn
		115					120					125			
Val	Ser	Phe	Asn	Asn	Ile	Cys	Met	Asp	Ser	Cys	Pro	Lys	Gly	Tyr	Tyr
	130					135					140				
Gln	Phe	Asp	Ser	Arg	Cys	Val	Thr	Ala	Asn	Glu	Cys	Ile	Thr	Leu	Thr
145					150					155					160
Lys	Phe	Glu	Thr	Asn	Ser	Val	Tyr	Ser	Gly	Ile	Pro	Tyr	Asn	Gly	Gln
				165					170					175	
Cys	Ile	Thr	His	Cys	Pro	Thr	Gly	Tyr	Gln	Lys	Ser	Glu	Asn	Lys	Arg
			180					185					190		
Met	Cys	Glu	Pro	Cys	Pro	Gly	Gly	Lys	Cys	Asp	Lys	Glu	Cys	Ser	Ser
		195				200						205			
Gly	Leu	Ile	Asp	Ser	Leu	Glu	Arg	Ala	Arg	Glu	Phe	His	Gly	Cys	Thr
	210					215				220					
Ile	Ile	Thr	Gly	Thr	Glu	Pro	Leu	Thr	Ile	Ser	Ile	Lys	Arg	Glu	Ser
225					230					235					240
Gly	Ala	His	Val	Met	Asp	Glu	Leu	Lys	Tyr	Gly	Leu	Ala	Ala	Val	His
				245					250					255	
Lys	Ile	Gln	Ser	Ser	Leu	Met	Val	His	Leu	Thr	Tyr	Gly	Leu	Lys	Ser
			260					265					270		
Leu	Lys	Phe	Gln	Ser	Leu	Thr	Glu	Ile	Ser	Gly	Asp	Pro	Pro	Met	
		275				280					285				
Asp	Ala	Asp	Lys	Tyr	Ala	Leu	Tyr	Val	Leu	Asp	Asn	Arg	Asp	Leu	Asp
	290					295					300				
Glu	Leu	Trp	Gly	Pro	Asn	Gln	Thr	Val	Phe	Ile	Arg	Lys	Gly	Gly	Val
305					310					315					320
Phe	Phe	His	Phe	Asn	Pro	Lys	Leu	Cys	Val	Ser	Thr	Ile	Asn	Gln	Leu
				325					330					335	
Leu	Pro	Met	Leu	Ala	Ser	Lys	Pro	Lys	Phe	Phe	Glu	Lys	Ser	Asp	Glu
			340					345					350		
Gly	Ala	Asp	Ser	Asn	Gly	Asn	Arg	Gly	Ser	Cys	Gly	Thr	Ala	Val	Leu

```
<210> 106
<211> 381
<212> PRT
<213> Caenorhabditis elegans
```

-52-

<210> 107  
 <211> 370  
 <212> PRT  
 <213> Homo sapiens

<400> 107  
 Ala Leu Pro Val Ala Val Leu Leu Ile Val Gly Gly Leu Val Ile Met  
 1 5 10 15  
 Leu Tyr Val Phe His Arg Lys Arg Asn Asn Ser Arg Leu Gly Asn Gly  
 20 25 30  
 Val Leu Tyr Ala Ser Val Asn Pro Glu Tyr Phe Ser Ala Ala Asp Val  
 35 40 45  
 Tyr Val Pro Asp Glu Trp Glu Val Ala Arg Glu Lys Ile Thr Met Ser  
 50 55 60  
 Arg Glu Leu Gly Gln Gly Ser Phe Gly Met Val Tyr Glu Gly Val Ala  
 65 70 75 80  
 Lys Gly Val Val Lys Asp Glu Pro Glu Thr Arg Val Ala Ile Lys Thr  
 85 90 95  
 Val Asn Glu Ala Ala Ser Met Arg Glu Arg Ile Glu Phe Leu Asn Glu  
 100 105 110  
 Ala Ser Val Met Lys Glu Phe Asn Cys His His Val Val Arg Leu Leu  
 115 120 125  
 Gly Val Val Ser Gln Gly Gln Pro Thr Leu Val Ile Met Glu Leu Met  
 130 135 140  
 Thr Arg Gly Asp Leu Lys Ser Tyr Leu Arg Ser Leu Arg Pro Glu Met  
 145 150 155 160  
 Glu Asn Asn Pro Val Leu Ala Pro Pro Ser Leu Ser Lys Met Ile Gln  
 165 170 175  
 Met Ala Gly Glu Ile Ala Asp Gly Met Ala Tyr Leu Asn Ala Asn Lys  
 180 185 190  
 Phe Val His Arg Asp Leu Ala Ala Arg Asn Cys Met Val Ala Glu Asp  
 195 200 205  
 Phe Thr Val Lys Ile Gly Asp Phe Gly Met Thr Arg Asp Ile Tyr Glu  
 210 215 220  
 Thr Asp Tyr Tyr Arg Lys Gly Gly Lys Gly Leu Leu Pro Val Arg Trp  
 225 230 235 240  
 Met Ser Pro Glu Ser Leu Lys Asp Gly Val Phe Thr Thr Tyr Ser Asp  
 245 250 255  
 Val Trp Ser Phe Gly Val Val Leu Trp Glu Ile Ala Thr Leu Ala Glu  
 260 265 270  
 Gln Pro Tyr Gln Gly Leu Ser Asn Glu Gln Val Leu Arg Phe Val Met  
 275 280 285  
 Glu Gly Gly Leu Leu Asp Lys Pro Asp Asn Cys Pro Asp Met Leu Phe  
 290 295 300  
 Glu Leu Met Arg Met Cys Trp Gln Tyr Asn Pro Lys Met Arg Pro Ser  
 305 310 315 320  
 Phe Leu Glu Ile Ile Ser Ser Ile Lys Glu Glu Met Glu Pro Gly Phe  
 325 330 335  
 Arg Glu Val Ser Phe Tyr Tyr Ser Glu Glu Asn Lys Leu Pro Glu Pro  
 340 345 350  
 Glu Glu Leu Asp Leu Glu Pro Glu Asn Met Glu Ser Val Pro Leu Asp  
 355 360 365  
 Pro Ser  
 370

<210> 108  
 <211> 374

<212> PRT  
 <213> Homo sapiens

<400> 108

Ile	Gly	Pro	Leu	Ile	Phe	Val	Phe	Leu	Phe	Ser	Val	Val	Ile	Gly	Ser
1				5					10					15	
Ile	Tyr	Leu	Phe	Leu	Arg	Lys	Arg	Gln	Pro	Asp	Gly	Pro	Leu	Gly	Pro
			20					25					30		
Leu	Tyr	Ala	Ser	Ser	Asn	Pro	Glu	Tyr	Leu	Ser	Ala	Ser	Asp	Val	Phe
		35					40					45			
Pro	Cys	Ser	Val	Tyr	Val	Pro	Asp	Glu	Trp	Glu	Val	Ser	Arg	Glu	Lys
	50					55				60					
Ile	Thr	Leu	Leu	Arg	Glu	Leu	Gly	Gln	Gly	Ser	Phe	Gly	Met	Val	Tyr
65				70					75					80	
Glu	Gly	Asn	Ala	Arg	Asp	Ile	Ile	Lys	Gly	Glu	Ala	Glu	Thr	Arg	Val
			85					90					95		
Ala	Val	Lys	Thr	Val	Asn	Glu	Ser	Ala	Ser	Leu	Arg	Glu	Arg	Ile	Glu
			100					105					110		
Phe	Leu	Asn	Glu	Ala	Ser	Val	Met	Lys	Gly	Phe	Thr	Cys	His	His	Val
		115					120					125			
Val	Arg	Leu	Leu	Gly	Val	Val	Ser	Lys	Gly	Gln	Pro	Thr	Leu	Val	Val
	130					135					140				
Met	Glu	Leu	Met	Ala	His	Gly	Asp	Leu	Lys	Ser	Tyr	Leu	Arg	Ser	Leu
145				150					155					160	
Arg	Pro	Glu	Ala	Glu	Asn	Asn	Pro	Gly	Arg	Pro	Pro	Pro	Thr	Leu	Gln
			165					170					175		
Glu	Met	Ile	Gln	Met	Ala	Ala	Glu	Ile	Ala	Asp	Gly	Met	Ala	Tyr	Leu
		180					185					190			
Asn	Ala	Lys	Lys	Phe	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Cys	Met
		195					200					205			
Val	Ala	His	Asp	Phe	Thr	Val	Lys	Ile	Gly	Asp	Phe	Gly	Met	Thr	Arg
	210					215					220				
Asp	Ile	Tyr	Glu	Thr	Asp	Tyr	Tyr	Arg	Lys	Gly	Gly	Lys	Gly	Leu	Leu
225				230					235					240	
Pro	Val	Arg	Trp	Met	Ala	Pro	Glu	Ser	Leu	Lys	Asp	Gly	Val	Phe	Thr
			245						250				255		
Thr	Ser	Ser	Asp	Met	Trp	Ser	Phe	Gly	Val	Val	Leu	Trp	Glu	Ile	Thr
		260					265					270			
Ser	Leu	Ala	Glu	Gln	Pro	Tyr	Gln	Gly	Leu	Ser	Asn	Glu	Gln	Val	Leu
		275					280					285			
Lys	Phe	Val	Met	Asp	Gly	Gly	Tyr	Leu	Asp	Gln	Pro	Asp	Asn	Cys	Pro
	290				295						300				
Glu	Arg	Val	Thr	Asp	Leu	Met	Arg	Met	Cys	Trp	Gln	Phe	Asn	Pro	Lys
305				310					315					320	
Met	Arg	Pro	Thr	Phe	Leu	Glu	Ile	Val	Asn	Leu	Leu	Lys	Asp	Asp	Leu
			325					330					335		
His	Pro	Ser	Phe	Pro	Glu	Val	Ser	Phe	Phe	His	Ser	Glu	Glu	Asn	Lys
			340				345					350			
Ala	Pro	Glu	Ser	Glu	Glu	Leu	Glu	Met	Glu	Phe	Glu	Asp	Met	Glu	Asn
		355				360						365			
Val	Pro	Leu	Asp	Arg	Ser										
			370												

<210> 109  
 <211> 384  
 <212> PRT  
 <213> Drosophila melanogaster

<400> 109

Gly	Ile	Gly	Leu	Ala	Phe	Leu	Ile	Val	Ser	Leu	Phe	Gly	Tyr	Val	Cys
1				5					10					15	
Tyr	Leu	His	Lys	Arg	Lys	Val	Pro	Ser	Asn	Asp	Leu	His	Met	Asn	Thr
			20					25					30		
Glu	Val	Asn	Pro	Phe	Tyr	Ala	Ser	Met	Gln	Tyr	Ile	Pro	Asp	Asp	Trp
		35					40					45			
Glu	Val	Leu	Arg	Glu	Asn	Ile	Ile	Gln	Leu	Ala	Pro	Leu	Gly	Gln	Gly
	50					55					60				
Ser	Phe	Gly	Met	Val	Tyr	Glu	Gly	Ile	Leu	Lys	Ser	Phe	Pro	Pro	Asn
65					70					75					80
Gly	Val	Asp	Arg	Glu	Cys	Ala	Ile	Lys	Thr	Val	Asn	Glu	Asn	Ala	Thr
				85					90					95	
Asp	Arg	Glu	Arg	Thr	Asn	Phe	Leu	Ser	Glu	Ala	Ser	Val	Met	Lys	Glu
			100					105					110		
Phe	Asp	Thr	Tyr	His	Val	Val	Arg	Leu	Leu	Gly	Val	Cys	Ser	Arg	Gly
	115						120					125			
Gln	Pro	Ala	Leu	Val	Val	Met	Glu	Leu	Met	Lys	Lys	Gly	Asp	Leu	Lys
	130					135					140				
Ser	Tyr	Leu	Arg	Ala	His	Arg	Pro	Glu	Glu	Arg	Asp	Glu	Ala	Met	Met
145					150					155					160
Thr	Tyr	Leu	Asn	Arg	Ile	Gly	Val	Thr	Gly	Asn	Val	Gln	Pro	Pro	Thr
			165						170					175	
Tyr	Gly	Arg	Ile	Tyr	Gln	Met	Ala	Ile	Glu	Ile	Ala	Asp	Gly	Met	Ala
			180					185					190		
Tyr	Leu	Ala	Ala	Lys	Lys	Phe	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn
	195						200					205			
Cys	Met	Val	Ala	Asp	Asp	Leu	Thr	Val	Lys	Ile	Gly	Asp	Phe	Gly	Met
	210					215					220				
Thr	Arg	Asp	Ile	Tyr	Glu	Thr	Asp	Tyr	Tyr	Arg	Lys	Gly	Thr	Lys	Gly
225					230					235					240
Leu	Leu	Pro	Val	Arg	Trp	Met	Pro	Pro	Glu	Ser	Leu	Arg	Asp	Gly	Val
			245						250					255	
Tyr	Ser	Ser	Ala	Ser	Asp	Val	Phe	Ser	Phe	Gly	Val	Val	Leu	Trp	Glu
			260					265					270		
Met	Ala	Thr	Leu	Ala	Ala	Gln	Pro	Tyr	Gln	Gly	Leu	Ser	Asn	Glu	Gln
		275					280					285			
Val	Leu	Arg	Tyr	Val	Ile	Asp	Gly	Gly	Val	Met	Glu	Arg	Pro	Glu	Asn
	290					295					300				
Cys	Pro	Asp	Phe	Leu	His	Lys	Leu	Met	Gln	Arg	Cys	Trp	His	His	Arg
305					310					315					320
Ser	Ser	Ala	Arg	Pro	Ser	Phe	Leu	Asp	Ile	Ile	Ala	Tyr	Leu	Glu	Pro
				325					330					335	
Gln	Cys	Pro	Asn	Ser	Gln	Phe	Lys	Glu	Val	Ser	Phe	Tyr	His	Ser	Glu
			340					345					350		
Ala	Gly	Leu	Gln	His	Arg	Glu	Lys	Glu	Arg	Lys	Glu	Arg	Asn	Gln	Leu
		355				360						365			
Asp	Ala	Phe	Ala	Ala	Val	Pro	Leu	Asp	Gln	Asp	Leu	Gln	Asp	Arg	Glu
	370					375					380				

<210> 110

<211> 380

<212> PRT

<213> Caenorhabditis elegans

<400> 110

Gly	Met	Leu	Leu	Val	Phe	Leu	Ile	Leu	Met	Ser	Ile	Ala	Gly	Cys	Ile
1				5					10					15	

Ile	Tyr	Tyr	Tyr	Ile	Gln	Val	Arg	Tyr	Gly	Lys	Lys	Val	Lys	Ala	Leu
			20					25					30		
Ser	Asp	Phe	Met	Gln	Leu	Asn	Pro	Glu	Tyr	Cys	Val	Asp	Asn	Lys	Tyr
		35					40					45			
Asn	Ala	Asp	Asp	Trp	Glu	Leu	Arg	Gln	Asp	Asp	Val	Val	Leu	Gly	Gln
		50				55					60				
Gln	Cys	Gly	Glu	Gly	Ser	Phe	Gly	Lys	Val	Tyr	Leu	Gly	Thr	Gly	Asn
65					70					75					80
Asn	Val	Val	Ser	Leu	Met	Gly	Asp	Arg	Phe	Gly	Pro	Cys	Ala	Ile	Lys
				85					90					95	
Ile	Asn	Val	Asp	Asp	Pro	Ala	Ser	Thr	Glu	Asn	Leu	Asn	Tyr	Leu	Met
			100					105					110		
Glu	Ala	Asn	Ile	Met	Lys	Asn	Phe	Lys	Thr	Asn	Phe	Ile	Val	Gln	Leu
		115					120					125			
Tyr	Gly	Val	Ile	Ser	Thr	Val	Gln	Pro	Ala	Met	Val	Val	Met	Glu	Met
		130				135					140				
Met	Asp	Leu	Gly	Asn	Leu	Arg	Asp	Tyr	Leu	Arg	Ser	Lys	Arg	Glu	Asp
145					150					155					160
Glu	Val	Phe	Asn	Glu	Thr	Asp	Cys	Asn	Phe	Phe	Asp	Ile	Ile	Pro	Arg
				165					170					175	
Asp	Lys	Phe	His	Glu	Trp	Ala	Ala	Gln	Ile	Cys	Asp	Gly	Met	Ala	Tyr
			180					185					190		
Leu	Glu	Ser	Leu	Lys	Phe	Cys	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Cys
		195					200					205			
Met	Ile	Asn	Arg	Asp	Glu	Thr	Val	Lys	Ile	Gly	Asp	Phe	Gly	Met	Ala
		210				215					220				
Arg	Asp	Leu	Phe	Tyr	His	Asp	Tyr	Tyr	Lys	Pro	Ser	Gly	Lys	Arg	Met
225					230					235					240
Met	Pro	Val	Arg	Trp	Met	Ser	Pro	Glu	Ser	Leu	Lys	Asp	Gly	Lys	Phe
				245					250					255	
Asp	Ser	Lys	Ser	Asp	Val	Trp	Ser	Phe	Gly	Val	Val	Leu	Tyr	Glu	Met
			260					265					270		
Val	Thr	Leu	Gly	Ala	Gln	Pro	Tyr	Ile	Gly	Leu	Ser	Asn	Asp	Glu	Val
		275					280					285			
Leu	Asn	Tyr	Ile	Gly	Met	Ala	Arg	Lys	Val	Ile	Lys	Lys	Pro	Glu	Cys
		290				295					300				
Cys	Glu	Asn	Tyr	Trp	Tyr	Lys	Val	Met	Lys	Met	Cys	Trp	Arg	Tyr	Ser
305					310					315					320
Pro	Arg	Asp	Arg	Pro	Thr	Phe	Leu	Gln	Leu	Val	His	Leu	Leu	Ala	Ala
				325					330					335	
Glu	Ala	Ser	Pro	Glu	Phe	Arg	Asp	Leu	Ser	Phe	Val	Leu	Thr	Asp	Asn
			340					345					350		
Gln	Met	Ile	Leu	Asp	Asp	Ser	Glu	Ala	Leu	Asp	Leu	Asp	Asp	Ile	Asp
		355					360					365			
Asp	Thr	Asp	Met	Asn	Asp	Gln	Val	Val	Glu	Val	Ala				
		370				375					380				

<210> 111

<211> 103

<212> PRT

<213> Caenorhabditis elegans

<400> 111

Asn	Ile	Asp	Arg	Glu	Phe	Asp	Gln	Lys	Ala	Cys	Glu	Ser	Leu	Val	Lys
1				5					10					15	
Lys	Leu	Lys	Asp	Lys	Lys	Asn	Asp	Leu	Gln	Asn	Leu	Ile	Asp	Val	Val
			20					25					30		
Leu	Ser	Lys	Gly	Thr	Lys	Tyr	Thr	Gly	Cys	Ile	Thr	Ile	Pro	Arg	Thr



35 40 45  
 Leu Asp Gly Arg Leu Gln Val His Gly Arg Lys Gly Phe Pro His Val  
 50 55 60  
 Val Tyr Gly Lys Leu Trp Arg Phe Asn Glu Met Thr Lys Asn Glu Thr  
 65 70 75 80  
 Arg His Val Asp His Cys Lys His Ala Phe Glu Met Lys Ser Asp Met  
 85 90 95  
 Val Cys Val Asn Pro Tyr His  
 100

<210> 112  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 112  
 Gly Gly Glu Ser Glu Thr Phe Ala Lys Arg Ala Ile Glu Ser Leu Val  
 1 5 10 15  
 Lys Lys Leu Lys Glu Lys Lys Asp Glu Leu Asp Ser Leu Ile Thr Ala  
 20 25 30  
 Ile Thr Thr Asn Gly Ala His Pro Ser Lys Cys Val Thr Ile Gln Arg  
 35 40 45  
 Thr Leu Asp Gly Arg Leu Gln Val Ala Gly Arg Lys Gly Phe Pro His  
 50 55 60  
 Val Ile Tyr Ala Arg Leu Trp Arg Trp Pro Asp Leu His Lys Asn Glu  
 65 70 75 80  
 Leu Lys His Val Lys Tyr Cys Gln Tyr Ala Phe Asp Leu Lys Cys Asp  
 85 90 95  
 Ser Val Cys Val Asn Pro Tyr His  
 100

<210> 113  
 <211> 205  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 113  
 Ile Val Tyr Tyr Glu Lys Asn Leu Gln Ile Gly Glu Lys Lys Cys Ser  
 1 5 10 15  
 Arg Gly Asn Phe His Val Asp Gly Gly Phe Ile Cys Ser Glu Asn Arg  
 20 25 30  
 Tyr Ser Leu Gly Leu Glu Pro Asn Pro Ile Arg Glu Pro Val Ala Phe  
 35 40 45  
 Lys Val Arg Lys Ala Ile Val Asp Gly Ile Arg Phe Ser Tyr Lys Lys  
 50 55 60  
 Asp Gly Ser Val Trp Leu Gln Asn Arg Met Lys Tyr Pro Val Phe Val  
 65 70 75 80  
 Thr Ser Gly Tyr Leu Asp Glu Gln Ser Gly Gly Leu Lys Lys Asp Lys  
 85 90 95  
 Val His Lys Val Tyr Gly Cys Ala Ser Ile Lys Thr Phe Gly Phe Asn  
 100 105 110  
 Val Ser Lys Gln Ile Ile Arg Asp Ala Leu Leu Ser Lys Gln Met Ala  
 115 120 125  
 Thr Met Tyr Leu Gln Gly Lys Leu Thr Pro Met Asn Tyr Ile Tyr Glu  
 130 135 140  
 Lys Lys Thr Gln Glu Glu Leu Arg Arg Glu Ala Thr Arg Thr Thr Asp  
 145 150 155 160

Ser Leu Ala Lys Tyr Cys Cys Val Arg Val Ser Phe Cys Lys Gly Phe  
165 170 175  
Gly Glu Ala Tyr Pro Glu Arg Pro Ser Ile His Asp Cys Pro Val Trp  
180 185 190  
Ile Glu Leu Lys Ile Asn Ile Ala Tyr Asp Phe Met Asp  
195 200 205

<210> 114  
<211> 212  
<212> PRT  
<213> Homo sapiens

<400> 114  
Ile Ala Tyr Phe Glu Met Asp Val Gln Val Gly Glu Thr Phe Lys Val  
1 5 10 15  
Pro Ser Ser Cys Pro Ile Val Thr Val Asp Gly Tyr Val Asp Pro Ser  
20 25 30  
Gly Gly Asp Arg Phe Cys Leu Gly Gln Leu Ser Asn Val His Arg Thr  
35 40 45  
Glu Ala Ile Glu Arg Ala Arg Leu His Ile Gly Lys Gly Val Gln Leu  
50 55 60  
Glu Cys Lys Gly Glu Gly Asp Val Trp Val Arg Cys Leu Ser Asp His  
65 70 75 80  
Ala Val Phe Val Gln Ser Tyr Tyr Leu Asp Arg Glu Ala Gly Arg Ala  
85 90 95  
Pro Gly Asp Ala Val His Lys Ile Tyr Pro Ser Ala Tyr Ile Lys Val  
100 105 110  
Phe Asp Leu Arg Gln Cys His Arg Gln Met Gln Gln Gln Ala Ala Thr  
115 120 125  
Ala Gln Ala Ala Ala Ala Gln Ala Ala Val Ala Gly Asn Ile  
130 135 140  
Pro Gly Pro Gly Ser Val Gly Gly Ile Ala Pro Ala Ile Ser Leu Ser  
145 150 155 160  
Ala Ala Ala Gly Ile Gly Val Asp Asp Leu Arg Arg Leu Cys Ile Leu  
165 170 175  
Arg Met Ser Phe Val Lys Gly Trp Gly Pro Asp Tyr Pro Arg Gln Ser  
180 185 190  
Ile Lys Glu Thr Pro Cys Trp Ile Glu Ile His Leu His Arg Ala Leu  
195 200 205  
Gln Leu Leu Asp  
210

<210> 115  
<211> 50  
<212> PRT  
<213> Caenorhabditis elegans

<220>  
<221> VARIANT  
<222> (1)...(50)  
<223> Xaa = Any Amino Acid

<400> 115  
Leu Cys Gly Xaa Xaa Leu Val Glu Ala Leu Xaa Xaa Val Cys Gly Xaa  
1 5 10 15  
Arg Gly Phe Phe Tyr Thr Pro Lys Thr Arg Arg Lys Arg Gly Ile Val  
20 25 30

Glu Gln Cys Cys Xaa Xaa Xaa Cys Xaa Xaa Xaa Gln Leu Glu Xaa Tyr  
 35 40 45  
 Cys Asn  
 50

<210> 116  
 <211> 39  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 116  
 Leu Cys Gly Arg His Leu Ala Asp Ala Leu Tyr Phe Val Cys Gly Asn  
 1 5 10 15  
 Arg Gly Phe Gly Ile Val Glu Glu Cys Cys His Asn Pro Cys Thr Leu  
 20 25 30  
 Tyr Gln Leu Glu Asn Tyr Cys  
 35

<210> 117  
 <211> 112  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 117  
 Met Asn Ser Val Phe Thr Ile Ile Phe Val Leu Cys Ala Leu Gln Val  
 1 5 10 15  
 Ala Ala Ser Phe Arg Gln Ser Phe Gly Pro Ser Met Ser Glu Glu Ser  
 20 25 30  
 Ala Ser Met Gln Leu Leu Arg Glu Leu Gln His Asn Met Met Glu Ser  
 35 40 45  
 Ala His Arg Pro Met Pro Arg Ala Arg Arg Val Pro Ala Pro Gly Glu  
 50 55 60  
 Thr Arg Ala Cys Gly Arg Lys Leu Ile Ser Leu Val Met Ala Val Cys  
 65 70 75 80  
 Gly Asp Leu Cys Asn Pro Gln Glu Gly Lys Asp Ile Ala Thr Glu Cys  
 85 90 95  
 Cys Gly Asn Gln Cys Ser Asp Asp Tyr Ile Arg Ser Ala Cys Cys Pro  
 100 105 110

<210> 118  
 <211> 106  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 118  
 Met Phe Ser Phe Phe Thr Tyr Phe Leu Leu Ser Ala Leu Leu Leu Ser  
 1 5 10 15  
 Ala Ser Cys Arg Gln Pro Ser Met Asp Thr Ser Lys Ala Asp Arg Ile  
 20 25 30  
 Leu Arg Glu Ile Glu Met Glu Thr Glu Leu Glu Asn Gln Leu Ser Arg  
 35 40 45  
 Ala Arg Arg Val Pro Ala Gly Glu Val Arg Ala Cys Gly Arg Arg Leu  
 50 55 60  
 Leu Leu Phe Val Trp Ser Thr Cys Gly Glu Pro Cys Thr Pro Gln Glu  
 65 70 75 80  
 Asp Met Asp Ile Ala Thr Val Cys Cys Thr Thr Gln Cys Thr Pro Ser

85 90 95  
 Tyr Ile Lys Gln Ala Cys Cys Pro Glu Lys  
 100 105

<210> 119  
 <211> 105  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 119  
 Met Pro Pro Ile Ile Leu Val Phe Phe Leu Val Leu Ile Pro Ala Ser  
 1 5 10 15  
 Gln Gln Tyr Pro Phe Ser Leu Glu Ser Leu Asn Asp Gln Ile Ile Asn  
 20 25 30  
 Glu Glu Val Ile Glu Tyr Met Leu Glu Asn Ser Ile Arg Ser Ser Arg  
 35 40 45  
 Thr Arg Arg Val Pro Asp Glu Lys Lys Ile Tyr Arg Cys Gly Arg Arg  
 50 55 60  
 Ile His Ser Tyr Val Phe Ala Val Cys Gly Lys Ala Cys Glu Ser Asn  
 65 70 75 80  
 Thr Glu Val Asn Ile Ala Ser Lys Cys Cys Arg Glu Glu Cys Thr Asp  
 85 90 95  
 Asp Phe Ile Arg Lys Gln Cys Cys Pro  
 100 105

<210> 120  
 <211> 118  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 120  
 Met Ile Val Thr Leu Ile Val Phe Leu Val Ile Gly Leu Gln Met Ala  
 1 5 10 15  
 His Leu Ser Gln Val Ser Gly Asn Asn Glu Asn Gly Phe Leu Asn Pro  
 20 25 30  
 Phe Asp Leu Ser Gln Trp Ser Glu Glu Ile Leu His Arg Gln Tyr His  
 35 40 45  
 His His His His His His Gly Asn Arg Ala Arg Arg Thr Leu Glu  
 50 55 60  
 Thr Glu Lys Ile Tyr Arg Cys Gly Arg Lys Leu Tyr Thr Asp Val Leu  
 65 70 75 80  
 Ser Ala Cys Asn Gly Pro Cys Glu Pro Gly Thr Glu Gln Asp Leu Ser  
 85 90 95  
 Lys Leu Cys Cys Gly Asn Gln Cys Thr Phe Val Glu Ile Arg Lys Ala  
 100 105 110  
 Cys Cys Ala Asp Lys Leu  
 115

<210> 121  
 <211> 106  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 121  
 Met Asn Ala Ile Ile Phe Cys Leu Leu Phe Thr Thr Val Thr Ala Thr  
 1 5 10 15

Tyr Glu Val Phe Gly Lys Gly Ile Glu His Arg Asn Glu His Leu Ile  
                   20                  25                  30  
 Ile Asn Gln Leu Asp Ile Ile Pro Val Glu Ser Thr Pro Thr Pro Asn  
                   35                  40                  45  
 Arg Ala Ser Arg Val Gln Lys Arg Leu Cys Gly Arg Arg Leu Ile Leu  
                   50                  55                  60  
 Phe Met Leu Ala Thr Cys Gly Glu Cys Asp Thr Asp Ser Ser Glu Asp  
 65                  70                  75                  80  
 Leu Ser His Ile Cys Cys Ile Lys Gln Cys Asp Val Gln Asp Ile Ile  
                   85                  90                  95  
 Arg Val Cys Cys Pro Asn Ser Phe Arg Lys  
                   100                  105

<210> 122  
 <211> 107  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 122  
 Met Lys Leu Ser Val Val Leu Ala Leu Phe Ile Ile Phe Gln Leu Gly  
 1                  5                  10                  15  
 Ala Ala Ser Leu Met Arg Asn Trp Met Phe Asp Phe Glu Lys Glu Leu  
                   20                  25                  30  
 Glu His Asp Tyr Asp Asp Ser Glu Ile Gly Phe His Asn Ile His Ser  
                   35                  40                  45  
 Leu Met Ala Arg Ser Arg Arg Gly Asp Lys Val Lys Ile Cys Gly Thr  
 50                  55                  60  
 Lys Val Leu Lys Met Val Met Val Met Cys Gly Gly Glu Cys Ser Ser  
 65                  70                  75                  80  
 Thr Asn Glu Asn Ile Ala Thr Glu Cys Cys Glu Lys Met Cys Thr Met  
                   85                  90                  95  
 Glu Asp Ile Thr Thr Lys Cys Cys Pro Ser Arg  
                   100                  105

<210> 123  
 <211> 73  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 123  
 Met Lys Leu Leu His Ile Phe Ile Ile Phe Leu Leu Phe Gln Ser Cys  
 1                  5                  10                  15  
 Ser Asn Lys Met Cys Gln Tyr Ser Lys Lys Lys Tyr Lys Ile Cys Gly  
                   20                  25                  30  
 Val Arg Ala Leu Lys His Met Lys Val Tyr Cys Thr Arg Gly Met Thr  
                   35                  40                  45  
 Arg Asp Tyr Gly Lys Leu Leu Val Thr Cys Cys Ser Lys Gly Cys Asn  
 50                  55                  60  
 Ala Ile Asp Ile Gln Arg Ile Cys Leu  
 65                  70

<210> 124  
 <211> 109  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 124

Met	Tyr	Trp	Phe	Arg	Gln	Val	Tyr	Arg	Pro	Ser	Phe	Phe	Phe	Gly	Phe
1				5					10					15	
Leu	Ala	Ile	Leu	Leu	Leu	Ser	Ser	Pro	Thr	Pro	Ser	Asp	Ala	Ser	Ile
			20					25					30		
Arg	Leu	Cys	Gly	Ser	Arg	Leu	Thr	Thr	Thr	Leu	Leu	Ala	Val	Cys	Arg
		35					40					45			
Asn	Gln	Leu	Cys	Thr	Gly	Leu	Thr	Ala	Phe	Lys	Arg	Ser	Ala	Asp	Gln
	50					55					60				
Ser	Tyr	Ala	Pro	Thr	Thr	Arg	Asp	Leu	Phe	His	Ile	His	His	Gln	Gln
65					70					75				80	
Lys	Arg	Gly	Gly	Ile	Ala	Thr	Glu	Cys	Cys	Glu	Lys	Arg	Cys	Ser	Phe
				85				90						95	
Ala	Tyr	Leu	Lys	Thr	Phe	Cys	Cys	Asn	Gln	Asp	Asp	Asn			
			100					105							

<210> 125

<211> 110

<212> PRT

<213> Homo sapiens

<400> 125

Met	Ala	Leu	Trp	Met	Arg	Leu	Leu	Pro	Leu	Leu	Ala	Leu	Leu	Ala	Leu
1				5					10					15	
Trp	Gly	Pro	Asp	Pro	Ala	Ala	Ala	Phe	Val	Asn	Gln	His	Leu	Cys	Gly
			20					25					30		
Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu	Arg	Gly	Phe
		35					40					45			
Phe	Tyr	Thr	Pro	Lys	Thr	Arg	Arg	Glu	Ala	Glu	Asp	Leu	Gln	Val	Gly
	50					55					60				
Gln	Val	Glu	Leu	Gly	Gly	Gly	Pro	Gly	Ala	Gly	Ser	Leu	Gln	Pro	Leu
65					70					75				80	
Ala	Leu	Glu	Gly	Ser	Leu	Gln	Lys	Arg	Gly	Ile	Val	Glu	Gln	Cys	Cys
				85				90						95	
Thr	Ser	Ile	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys	Asn		
			100					105					110		

<210> 126

<211> 46

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 126

Ala	Cys	Gly	Arg	Arg	Leu	Leu	Leu	Phe	Val	Trp	Ser	Thr	Cys	Gly	Glu
1				5					10					15	
Pro	Cys	Thr	Xaa	Xaa	Xaa	Gln	Glu	Asp	Met	Asp	Ile	Ala	Thr	Val	Cys
			20					25					30		
Cys	Thr	Thr	Gln	Cys	Thr	Pro	Ser	Tyr	Ile	Lys	Gln	Ala	Cys		
			35				40					45			

<210> 127

<211> 46  
<212> PRT  
<213> Caenorhabditis elegans

<220>  
<221> VARIANT  
<222> (1)...(46)  
<223> Xaa = Any Amino Acid

<400> 127  
Ala Cys Gly Arg Lys Leu Ile Ser Leu Val Met Ala Val Cys Gly Asp  
1 5 10 15  
Leu Cys Asn Xaa Xaa Xaa Gln Glu Gly Lys Asp Ile Ala Thr Glu Cys  
20 25 30  
Cys Gly Asn Gln Cys Ser Asp Asp Tyr Ile Arg Ser Ala Cys  
35 40 45

<210> 128  
<211> 46  
<212> PRT  
<213> Caenorhabditis elegans

<220>  
<221> VARIANT  
<222> (1)...(46)  
<223> Xaa = Any Amino Acid

<400> 128  
Arg Cys Gly Arg Arg Ile His Ser Tyr Val Phe Ala Val Cys Gly Lys  
1 5 10 15  
Ala Cys Glu Xaa Xaa Xaa Ser Thr Glu Val Asn Ile Ala Ser Lys Cys  
20 25 30  
Cys Arg Glu Glu Cys Thr Asp Asp Phe Ile Arg Lys Gln Cys  
35 40 45

<210> 129  
<211> 46  
<212> PRT  
<213> Caenorhabditis elegans

<220>  
<221> VARIANT  
<222> (1)...(46)  
<223> Xaa = Any Amino Acid

<400> 129  
Arg Cys Gly Arg Lys Leu Tyr Thr Asp Val Leu Ser Ala Cys Asn Gly  
1 5 10 15  
Pro Cys Glu Xaa Xaa Xaa Gly Thr Glu Gln Asp Leu Ser Lys Leu Cys  
20 25 30  
Cys Gly Asn Gln Cys Thr Phe Asx Glu Ile Arg Lys Ala Cys  
35 40 45

<210> 130  
<211> 46  
<212> PRT

<213> Caenorhabditis elegans

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 130

Ile	Cys	Gly	Thr	Lys	Asx	Leu	Lys	Met	Val	Met	Val	Met	Cys	Gly	Gly
1				5				10					15		
Glu	Cys	Ser	Xaa	Xaa	Xaa	Ser	Thr	Asn	Glu	Asn	Ile	Ala	Thr	Glu	Cys
			20				25					30			
Cys	Glu	Lys	Met	Cys	Thr	Met	Glu	Asp	Ile	Thr	Thr	Lys	Cys		
	35						40					45			

<210> 131

<211> 46

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 131

Leu	Cys	Gly	Arg	Arg	Leu	Ile	Leu	Phe	Met	Leu	Ala	Thr	Cys	Gly	Glu
1				5				10					15		
Cys	Asp	Thr	Xaa	Xaa	Xaa	Asp	Ser	Ser	Glu	Asp	Leu	Ser	His	Ile	Cys
			20				25					30			
Cys	Ile	Lys	Gln	Cys	Asp	Val	Gln	Asp	Ile	Ile	Arg	Val	Cys		
	35						40					45			

<210> 132

<211> 46

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 132

Leu	Cys	Gly	Ser	His	Leu	Val	Glu	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu
1				5				10					15		
Arg	Gly	Phe	Xaa	Xaa	Xaa	Leu	Gln	Lys	Arg	Gly	Ile	Val	Glu	Gln	Cys
			20				25					30			
Cys	Thr	Ser	Ile	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys		
	35						40					45			

<210> 133

<211> 46

<212> PRT

<213> Rabbit



<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 133  
 Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu  
 1 5 10 15  
 Arg Gly Phe Xaa Xaa Xaa Thr Pro Lys Ser Gly Ile Val Glu Gln Cys  
 20 25 30  
 Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys  
 35 40 45

<210> 134  
 <211> 46  
 <212> PRT  
 <213> Xenopus laevis

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 134  
 Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Asp  
 1 5 10 15  
 Arg Gly Phe Xaa Xaa Xaa Lys Met Lys Arg Gly Ile Val Glu Gln Cys  
 20 25 30  
 Cys His Ser Thr Cys Ser Leu Phe Gln Leu Glu Ser Tyr Cys  
 35 40 45

<210> 135  
 <211> 46  
 <212> PRT  
 <213> Xenopus laevis

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 135  
 Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Asp  
 1 5 10 15  
 Arg Gly Phe Xaa Xaa Xaa Lys Met Lys Arg Gly Ile Val Glu Gln Cys  
 20 25 30  
 Cys His Ser Thr Cys Ser Leu Phe Gln Leu Glu Asn Tyr Cys  
 35 40 45

<210> 136  
 <211> 46  
 <212> PRT  
 <213> Alligator

<220>  
 <221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 136

Leu	Cys	Gly	Ser	His	Leu	Val	Asp	Ala	Leu	Tyr	Leu	Val	Cys	Gly	Glu
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Ser	Pro	Lys	Gly	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	His	Asn	Thr	Cys	Ser	Leu	Tyr	Gln	Leu	Glu	Asn	Tyr	Cys		
		35					40					45			

<210> 137

<211> 46

<212> PRT

<213> Elephant fish

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 137

Leu	Cys	Gly	Ser	His	Leu	Val	Asp	Ala	Leu	Tyr	Phe	Val	Cys	Gly	Glu
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Pro	Lys	Gln	Ile	Gly	Ile	Val	Glu	Gln	Cys
			20					25					30		
Cys	His	Asn	Thr	Cys	Ser	Leu	Val	Asn	Leu	Glu	Gly	Tyr	Cys		
		35					40					45			

<210> 138

<211> 46

<212> PRT

<213> Bos taurus

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 138

Leu	Cys	Gly	Ala	Glu	Leu	Val	Asp	Ala	Leu	Gln	Phe	Val	Cys	Gly	Asp
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Ala	Pro	Gln	Thr	Gly	Ile	Val	Asp	Glu	Cys
			20					25					30		
Cys	Phe	Arg	Ser	Cys	Asp	Leu	Arg	Arg	Leu	Glu	Met	Tyr	Cys		
		35					40					45			

<210> 139

<211> 46

<212> PRT

<213> Canis

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 139

Leu	Cys	Gly	Ala	Glu	Leu	Val	Asp	Ala	Leu	Gln	Phe	Val	Cys	Gly	Asp
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Ala	Pro	Gln	Thr	Gly	Ile	Val	Asp	Glu	Cys
			20					25					30		
Cys	Phe	Arg	Ser	Cys	Asp	Leu	Arg	Arg	Leu	Glu	Met	Tyr	Cys		
		35					40					45			

<210> 140

<211> 46

<212> PRT

<213> Horse

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 140

Leu	Cys	Gly	Gly	Glu	Leu	Val	Asp	Thr	Leu	Gln	Phe	Val	Cys	Gly	Asp
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Arg	Arg	Ser	Arg	Gly	Ile	Val	Glu	Glu	Cys
			20					25					30		
Cys	Phe	Arg	Ser	Cys	Asp	Leu	Ala	Leu	Leu	Glu	Thr	Tyr	Cys		
		35					40					45			

<210> 141

<211> 46

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 141

Leu	Cys	Gly	Gly	Glu	Leu	Val	Asp	Thr	Leu	Gln	Phe	Val	Cys	Gly	Asp
1				5					10					15	
Arg	Gly	Phe	Xaa	Xaa	Xaa	Arg	Arg	Ser	Arg	Gly	Ile	Val	Glu	Glu	Cys
			20					25					30		
Cys	Phe	Arg	Ser	Cys	Asp	Leu	Ala	Leu	Leu	Glu	Thr	Tyr	Cys		
		35					40					45			

<210> 142

<211> 46

<212> PRT

<213> Amphioxus

<220>

<221> VARIANT

<222> (1)...(46)

<223> Xaa = Any Amino Acid

<400> 142

Leu Cys Gly Ser Thr Leu Ala Asp Val Leu Ser Phe Val Cys Gly Asn

1		5		10		15									
Arg	Gly	Tyr	Xaa	Xaa	Xaa	Arg	Arg	Arg	Arg	Gly	Leu	Val	Glu	Glu	Cys
		20					25						30		
Cys	Tyr	Asn	Val	Cys	Asp	Tyr	Ser	Gln	Leu	Glu	Ser	Tyr	Cys		
		35					40					45			

<210> 143  
 <211> 46  
 <212> PRT  
 <213> Locust

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

Tyr	Cys	Gly	Glu	Lys	Leu	Ser	Asn	Ala	Leu	Lys	Leu	Val	Cys	Arg	Gly
1				5					10					15	
Asn	Tyr	Asn	Xaa	Xaa	Xaa	Arg	Arg	Thr	Arg	Gly	Val	Phe	Asp	Glu	Cys
		20						25					30		
Cys	Arg	Lys	Ser	Cys	Ser	Ile	Ser	Glu	Leu	Gln	Thr	Tyr	Cys		
		35					40					45			

<210> 144  
 <211> 46  
 <212> PRT  
 <213> Bommo

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

Tyr	Cys	Gly	Arg	His	Leu	Ala	Arg	Thr	Leu	Ala	Asp	Leu	Cys	Trp	Glu
1				5					10					15	
Ala	Gly	Val	Xaa	Xaa	Xaa	Arg	Gly	Lys	Arg	Gly	Ile	Val	Asp	Glu	Cys
		20						25					30		
Cys	Leu	Arg	Pro	Cys	Ser	Val	Asp	Val	Leu	Leu	Ser	Tyr	Cys		
		35					40					45			

<210> 145  
 <211> 46  
 <212> PRT  
 <213> Bommo

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

Tyr	Cys	Gly	Arg	His	Leu	Ala	Asp	Thr	Leu	Ala	Asp	Leu	Cys	Phe	Gly
1				5					10					15	
Val	Glu	Lys	Xaa	Xaa	Xaa	Arg	Gly	Lys	Arg	Gly	Val	Val	Asp	Glu	Cys

		20					25			30			
Cys	Phe	Arg	Pro	Cys	Thr	Leu	Asp	Val	Leu	Leu	Ser	Tyr	Cys
		35					40					45	

<210> 146  
 <211> 46  
 <212> PRT  
 <213> Horn worm

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 146															
Ile	Cys	Gly	Arg	His	Leu	Ala	Arg	Thr	Leu	Ala	Asp	Leu	Cys	Pro	Asn
1				5					10					15	
Val	Glu	Tyr	Xaa	Xaa	Xaa	Gly	Lys	Arg	Ala	Gly	Val	Ala	Asp	Asp	Cys
			20					25					30		
Cys	Asx	Asn	Ser	Cys	Thr	Met	Asp	Val	Leu	Leu	Ser	Tyr	Cys		
		35					40					45			

<210> 147  
 <211> 46  
 <212> PRT  
 <213> Bombyx mori

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 147															
Tyr	Cys	Gly	Arg	Arg	Leu	Ala	Thr	Met	Leu	Ser	Phe	Val	Cys	Asp	Asn
1				5					10					15	
Gln	Tyr	Gln	Xaa	Xaa	Xaa	Gly	Lys	Arg	Gln	Gly	Ile	Ala	Glu	Glu	Cys
			20					25					30		
Cys	Asn	Lys	Pro	Cys	Thr	Glu	Asn	Glu	Leu	Leu	Gly	Tyr	Cys		
		35					40					45			

<210> 148  
 <211> 46  
 <212> PRT  
 <213> Bombyx mori

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 148															
Tyr	Cys	Gly	Arg	Arg	Leu	Ala	Thr	Met	Leu	Leu	Tyr	Val	Cys	Asp	Asn
1				5					10					15	
Gln	Tyr	Gln	Xaa	Xaa	Xaa	Gly	Lys	Arg	Gln	Gly	Ile	Val	Glu	Glu	Cys
			20					25					30		
Cys	Asn	Lys	Pro	Cys	Thr	Glu	Asn	Glu	Leu	Leu	Gly	Tyr	Cys		

35

40

45

<210> 149  
 <211> 46  
 <212> PRT  
 <213> Bombyx mori

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 149  
 Tyr Cys Gly Arg Arg Leu Ala Ile Met Leu Ser Tyr Leu Cys Asp Asn  
 1 5 10 15  
 Gln Tyr Leu Xaa Xaa Xaa Gly Lys Arg Gln Gly Ile Ala Glu Glu Cys  
 20 25 30  
 Cys Asn Lys Pro Cys Thr Glu Asp Glu Leu Leu Gly Tyr Cys  
 35 40 45

<210> 150  
 <211> 46  
 <212> PRT  
 <213> Caenorhabditis elegans

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 150  
 Leu Cys Gly Ser Arg Leu Thr Thr Thr Leu Leu Ala Val Cys Arg Asn  
 1 5 10 15  
 Gln Leu Cys Xaa Xaa Xaa Gln Lys Arg Gly Gly Ile Ala Thr Glu Cys  
 20 25 30  
 Cys Glu Lys Arg Cys Ser Phe Ala Tyr Leu Lys Thr Phe Cys  
 35 40 45

<210> 151  
 <211> 46  
 <212> PRT  
 <213> Moi 3

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 151  
 Leu Cys Gly Ser Thr Leu Ala Asn Met Val Gln Trp Leu Cys Ser Thr  
 1 5 10 15  
 Tyr Thr Thr Xaa Xaa Xaa Glu Ser Arg Pro Ser Ile Val Cys Glu Cys  
 20 25 30  
 Cys Phe Asn Gln Cys Thr Val Gln Glu Leu Leu Ala Tyr Cys  
 35 40 45

<210> 152  
 <211> 46  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 152  
 Leu Cys Gly Arg Glu Leu Val Arg Ala Gln Ile Ala Ile Cys Gly Met  
 1 5 10 15  
 Ser Thr Trp Xaa Xaa Xaa Arg Pro Tyr Val Ala Leu Phe Glu Lys Cys  
 20 25 30  
 Cys Leu Ile Gly Cys Thr Lys Arg Ser Leu Ala Lys Tyr Cys  
 35 40 45

<210> 153  
 <211> 46  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> VARIANT  
 <222> (1)...(46)  
 <223> Xaa = Any Amino Acid

<400> 153  
 Leu Cys Gly His His Phe Val Arg Ala Leu Val Arg Val Cys Gly Gly  
 1 5 10 15  
 Pro Arg Trp Xaa Xaa Xaa Ala Ala Ala Thr Asn Pro Ala Arg Tyr Cys  
 20 25 30  
 Cys Leu Ser Gly Cys Thr Gln Gln Asp Leu Leu Thr Leu Cys  
 35 40 45

<210> 154  
 <211> 541  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 154  
 Met Ser Met Thr Ser Leu Ser Thr Lys Ser Arg Arg Gln Glu Asp Val  
 1 5 10 15  
 Val Ile Glu Gly Trp Leu His Lys Lys Gly Glu His Ile Arg Asn Trp  
 20 25 30  
 Arg Pro Arg Tyr Phe Met Ile Phe Asn Asp Gly Ala Leu Leu Gly Phe  
 35 40 45  
 Arg Ala Lys Pro Lys Glu Gly Gln Pro Phe Pro Glu Pro Leu Asn Asp  
 50 55 60  
 Phe Met Ile Lys Asp Ala Ala Thr Met Leu Phe Glu Lys Pro Arg Pro  
 65 70 75 80  
 Asn Met Phe Met Val Arg Cys Leu Gln Trp Thr Thr Val Ile Glu Arg  
 85 90 95  
 Thr Phe Tyr Ala Glu Ser Ala Glu Val Arg Gln Arg Trp Ile His Ala  
 100 105 110  
 Ile Glu Ser Ile Ser Lys Lys Tyr Lys Gly Thr Asn Ala Asn Pro Gln

```
<210> 155
<211> 546
<212> PRT
<213> Caenorhabditis elegans
```



<400> 155

Met	Ser	Met	Thr	Ser	Leu	Ser	Thr	Lys	Ser	Arg	Arg	Gln	Glu	Asp	Val
1				5					10					15	
Val	Ile	Glu	Gly	Trp	Leu	His	Lys	Lys	Gly	Glu	His	Ile	Arg	Asn	Trp
			20					25					30		
Arg	Pro	Arg	Tyr	Phe	Met	Ile	Phe	Asn	Asp	Gly	Ala	Leu	Leu	Gly	Phe
		35					40					45			
Arg	Ala	Lys	Pro	Lys	Glu	Gly	Gln	Pro	Phe	Pro	Glu	Pro	Leu	Asn	Asp
	50					55					60				
Phe	Met	Ile	Lys	Asp	Ala	Ala	Thr	Met	Leu	Phe	Glu	Lys	Pro	Arg	Pro
65					70					75					80
Asn	Met	Phe	Met	Val	Arg	Cys	Leu	Gln	Trp	Thr	Thr	Val	Ile	Glu	Arg
				85					90					95	
Thr	Phe	Tyr	Ala	Glu	Ser	Ala	Glu	Val	Arg	Gln	Arg	Trp	Ile	His	Ala
			100					105					110		
Ile	Glu	Ser	Ile	Ser	Lys	Lys	Tyr	Lys	Gly	Thr	Asn	Ala	Asn	Pro	Gln
		115					120					125			
Glu	Glu	Leu	Met	Glu	Thr	Asn	Gln	Gln	Pro	Lys	Ile	Asp	Glu	Asp	Ser
	130					135					140				
Glu	Phe	Ala	Gly	Ala	Ala	His	Ala	Ile	Met	Gly	Gln	Pro	Ser	Ser	Gly
145					150					155					160
His	Gly	Asp	Asn	Cys	Ser	Ile	Asp	Phe	Arg	Ala	Ser	Met	Ile	Ser	Ile
				165					170					175	
Ala	Asp	Thr	Ser	Glu	Ala	Ala	Lys	Arg	Asp	Lys	Ile	Thr	Met	Glu	Asp
			180					185					190		
Phe	Asp	Phe	Leu	Lys	Val	Leu	Gly	Lys	Gly	Thr	Phe	Gly	Lys	Val	Ile
		195					200					205			
Leu	Cys	Lys	Glu	Lys	Arg	Thr	Gln	Lys	Leu	Tyr	Ala	Ile	Lys	Ile	Leu
	210					215					220				
Lys	Lys	Asp	Val	Ile	Ile	Ala	Arg	Glu	Glu	Val	Ala	His	Thr	Leu	Thr
225					230					235					240
Glu	Asn	Arg	Val	Leu	Gln	Arg	Cys	Lys	His	Pro	Phe	Leu	Thr	Glu	Leu
				245					250					255	
Lys	Tyr	Ser	Phe	Gln	Thr	Asn	Asp	Arg	Leu	Cys	Phe	Val	Met	Glu	Phe
			260				265						270		
Ala	Ile	Gly	Gly	Asp	Leu	Tyr	Tyr	His	Leu	Asn	Arg	Glu	Val	Gln	Met
		275					280					285			
Asn	Lys	Glu	Gly	Phe	Ser	Glu	Pro	Arg	Ala	Arg	Phe	Tyr	Gly	Ser	Glu
	290					295					300				
Ile	Val	Leu	Ala	Leu	Gly	Tyr	Leu	His	Ala	Asn	Ser	Ile	Val	Tyr	Arg
305					310					315					320
Asp	Leu	Lys	Leu	Glu	Asn	Leu	Leu	Leu	Asp	Lys	Asp	Gly	His	Ile	Lys
				325					330					335	
Ile	Ala	Asp	Phe	Gly	Leu	Cys	Lys	Glu	Glu	Ile	Ser	Phe	Gly	Asp	Lys
			340					345					350		
Thr	Ser	Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val	Leu
		355					360					365			
Asp	Asp	His	Asp	Tyr	Gly	Arg	Cys	Val	Asp	Trp	Trp	Gly	Val	Gly	Val
	370					375						380			
Val	Met	Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Tyr	Ser	Lys	Asp
385					390					395					400
His	Asn	Lys	Leu	Phe	Glu	Leu	Ile	Met	Ala	Gly	Asp	Leu	Arg	Phe	Pro
				405					410					415	
Ser	Lys	Leu	Ser	Gln	Glu	Ala	Arg	Thr	Leu	Leu	Thr	Gly	Leu	Leu	Val
			420					425					430		
Lys	Asp	Pro	Thr	Gln	Arg	Leu	Gly	Gly	Gly	Pro	Glu	Asp	Ala	Leu	Glu
		435					440					445			
Ile	Cys	Arg	Ala	Asp	Phe	Phe	Arg	Thr	Val	Asp	Trp	Glu	Ala	Thr	Tyr
	450					455					460				

Arg Lys Glu Ile Glu Pro Pro Tyr Lys Pro Asn Val Gln Ser Glu Thr  
 465 470 475 480  
 Asp Thr Ser Tyr Phe Asp Asn Glu Phe Thr Ser Gln Pro Val Gln Leu  
 485 490 495  
 Thr Pro Pro Ser Arg Ser Gly Ala Leu Ala Thr Val Asp Glu Gln Glu  
 500 505 510  
 Glu Met Gln Ser Asn Phe Thr Gln Phe Ser Phe His Asn Val Met Gly  
 515 520 525  
 Ser Ile Asn Arg Ile His Glu Ala Ser Glu Asp Asn Glu Asp Tyr Asp  
 530 535 540  
 Met Gly  
 545

<210> 156  
 <211> 483  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 156  
 Met Ser Thr Glu Asn Ala His Leu Gln Lys Glu Asp Ile Val Ile Glu  
 1 5 10 15  
 Ser Trp Leu His Lys Lys Gly Glu His Ile Arg Asn Trp Arg Pro Arg  
 20 25 30  
 Tyr Phe Ile Leu Phe Arg Asp Gly Thr Leu Leu Gly Phe Arg Ser Lys  
 35 40 45  
 Pro Lys Glu Asp Gln Pro Leu Pro Glu Pro Leu Asn Asn Phe Met Ile  
 50 55 60  
 Arg Asp Ala Ala Thr Val Cys Leu Asp Lys Pro Arg Pro Asn Met Phe  
 65 70 75 80  
 Ile Val Arg Cys Leu Gln Trp Thr Thr Val Ile Glu Arg Thr Phe Tyr  
 85 90 95  
 Ala Asp Ser Ala Asp Phe Arg Gln Met Trp Ile Glu Ala Ile Gln Ala  
 100 105 110  
 Val Ser Ser His Asn Arg Leu Lys Glu Asn Ala Gly Asn Thr Ser Met  
 115 120 125  
 Gln Glu Glu Asp Thr Asn Gly Asn Pro Ser Gly Glu Ser Asp Val Asn  
 130 135 140  
 Met Asp Ala Thr Ser Thr Arg Ser Asp Asn Asp Phe Glu Ser Thr Val  
 145 150 155 160  
 Met Asn Ile Asp Glu Pro Glu Glu Val Pro Arg Lys Asn Thr Val Thr  
 165 170 175  
 Met Asp Asp Phe Asp Phe Leu Lys Val Leu Gly Gln Gly Thr Phe Gly  
 180 185 190  
 Lys Val Ile Leu Cys Arg Glu Lys Ser Ser Asp Lys Leu Tyr Ala Ile  
 195 200 205  
 Lys Ile Ile Arg Lys Glu Met Val Val Asp Arg Ser Glu Val Ala His  
 210 215 220  
 Thr Leu Thr Glu Asn Arg Val Leu Tyr Ala Cys Val His Pro Phe Leu  
 225 230 235 240  
 Thr Leu Leu Lys Tyr Ser Phe Gln Ala Gln Tyr His Ile Cys Phe Val  
 245 250 255  
 Met Glu Phe Ala Asn Gly Gly Glu Leu Phe Thr His Leu Gln Arg Cys  
 260 265 270  
 Lys Thr Phe Ser Glu Ala Arg Thr Arg Phe Tyr Gly Ser Glu Ile Ile  
 275 280 285  
 Leu Ala Leu Gly Tyr Leu His His Arg Asn Ile Val Tyr Arg Asp Met  
 290 295 300  
 Lys Leu Glu Asn Leu Leu Leu Asp Arg Asp Gly His Ile Lys Ile Thr

305		310		315		320									
Asp	Phe	Gly	Leu	Cys	Lys	Glu	Glu	Ile	Lys	Tyr	Gly	Asp	Lys	Thr	Ser
			325						330					335	
Thr	Phe	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val	Ile	Glu	Asp
			340						345					350	
Ile	Asp	Tyr	Asp	Arg	Ser	Val	Asp	Trp	Trp	Gly	Val	Gly	Val	Val	Met
		355					360					365			
Tyr	Glu	Met	Met	Cys	Gly	Arg	Leu	Pro	Phe	Ser	Ala	Lys	Glu	Asn	Gly
	370					375					380				
Lys	Leu	Phe	Glu	Leu	Ile	Thr	Thr	Cys	Asp	Leu	Lys	Phe	Pro	Asn	Arg
385					390					395				400	
Leu	Ser	Pro	Glu	Ala	Val	Thr	Leu	Leu	Ser	Gly	Leu	Leu	Glu	Arg	Val
				405					410					415	
Pro	Ala	Lys	Arg	Leu	Gly	Ala	Gly	Pro	Asp	Asp	Ala	Arg	Glu	Val	Ser
			420					425					430		
Arg	Ala	Glu	Phe	Phe	Lys	Asp	Val	Asp	Trp	Glu	Ala	Thr	Leu	Arg	Lys
		435				440					445				
Glu	Val	Glu	Pro	Pro	Phe	Lys	Pro	Asn	Val	Met	Ser	Glu	Thr	Asp	Thr
	450					455				460					
Ser	Phe	Phe	Asp	Arg	Val	Arg	Tyr	Val	Ser	Ile	Leu	Leu	Lys	Val	Ser
465					470					475				480	
Glu	Ala	Ile													

<210> 157  
 <211> 480  
 <212> PRT  
 <213> Homo sapiens

<400> 157

Met	Ser	Asp	Val	Ala	Ile	Val	Lys	Glu	Gly	Trp	Leu	His	Lys	Arg	Gly
1				5					10					15	
Glu	Tyr	Ile	Lys	Thr	Trp	Arg	Pro	Arg	Tyr	Phe	Leu	Leu	Lys	Asn	Asp
			20					25					30		
Gly	Thr	Phe	Ile	Gly	Tyr	Lys	Glu	Arg	Pro	Gln	Val	Asp	Val	Gln	Arg
		35				40						45			
Glu	Ala	Pro	Leu	Asn	Asn	Phe	Ser	Val	Ala	Gln	Cys	Gln	Leu	Met	Lys
	50				55					60					
Thr	Glu	Arg	Pro	Arg	Pro	Asn	Thr	Phe	Ile	Ile	Arg	Cys	Leu	Gln	Trp
65					70				75					80	
Thr	Thr	Val	Ile	Glu	Arg	Thr	Phe	His	Val	Glu	Thr	Pro	Glu	Glu	Arg
			85					90					95		
Glu	Glu	Trp	Thr	Thr	Ala	Ile	Gln	Thr	Val	Ala	Asp	Gly	Leu	Lys	Lys
			100				105						110		
Gln	Glu	Glu	Glu	Glu	Met	Asp	Phe	Arg	Ser	Gly	Ser	Pro	Ser	Asp	Asn
		115				120						125			
Ser	Gly	Ala	Glu	Glu	Met	Glu	Val	Ser	Leu	Ala	Lys	Pro	Lys	His	Arg
	130				135					140					
Val	Thr	Met	Asn	Glu	Phe	Glu	Tyr	Leu	Lys	Leu	Leu	Gly	Lys	Gly	Thr
145					150				155					160	
Phe	Gly	Lys	Val	Ile	Leu	Val	Lys	Glu	Lys	Ala	Thr	Gly	Arg	Tyr	Tyr
			165					170						175	
Ala	Met	Lys	Ile	Leu	Lys	Lys	Glu	Val	Ile	Val	Ala	Lys	Asp	Glu	Val
			180				185						190		
Ala	His	Thr	Leu	Thr	Glu	Asn	Arg	Val	Leu	Gln	Asn	Ser	Arg	His	Pro
		195				200						205			
Phe	Leu	Thr	Ala	Leu	Lys	Tyr	Ser	Phe	Gln	Thr	His	Asp	Arg	Leu	Cys
	210					215					220				

```
<210> 158
<211> 6250
<212> DNA
<213> Caenorhabditis elegans
```

-76-

catcgggtgat	tcttttcttgg	caattcaact	gatagtactg	gtattaccta	gccgcaaaaa	1200
atttgcagtt	tttgccacaa	atctatcttg	acacaatata	cctcactatt	agttaaatgc	1260
tgagttttta	tcgattttta	tagctttttt	tacttatgta	tattcaaaat	gtatgtgttt	1320
ttcaaatctt	tttaaagggt	tagtacggtc	attaaaaaaa	atatttaaaa	atcatcttca	1380
tggcgctaaa	atgagcgact	atcataagaa	attagaaaat	ttggaaaatt	ggtttatttt	1440
tttctagtcc	ttgaattttc	accttcccat	ttttatgctc	taactgtgtt	tcaaatactc	1500
atattccaac	attgtaggaa	ttctagaatt	gcttttagatt	tctctttgtt	ttccaatctt	1560
ttttactgta	agttatcatc	attttggcac	cgaaaaggttt	ttttaggtaa	ttttaccact	1620
gaccgtaaca	cttttccaat	ggcgtataca	atttgaattt	agcaacaaaa	caaaaaaaaa	1680
caaaaatcgt	accaagacgg	actactgtat	tttttggcgg	aaaaatcggc	caatttttgcg	1740
tcagggttac	acgactgtgg	gaattgaact	cgcactatgt	aggcccatc	atgttgtctc	1800
cccctgtcca	atctcttttc	tccacaacac	tttaatctca	tttcgcatgg	agaagagaaa	1860
gaagaagatg	cagaaaacga	cgacatcgtc	atagaattgt	ctacacaaac	ctagtgttct	1920
gcgctctctt	cacaaaaata	gccacgcgtc	tagcactatc	aacattcgca	aacagctata	1980
catgtgcttg	ttgaagggaa	aaacgagacg	tttgtgtgta	ttggggaggg	gtaatgtaac	2040
cgtgggtgtt	gggttcatca	aattgacagc	gcacagggat	ttgattttga	acgtgttatc	2100
gctttggacc	ctgaggcatg	tttcttacac	ctagaacaac	taccgtaatg	aatctttaca	2160
ttgacttttcg	gagagaaggg	tttgtactct	gactatgtat	aactcaagaa	gaatgtaggg	2220
aatttatgtc	gttggaactt	ccaatttgga	agtacagttt	tttggaatt	aaatttttga	2280
ttcttaaaat	agtcgacttg	aaataatttt	tcgttattta	tcaatccaat	gagttgaaaa	2340
agtgaatgga	aattttcttg	ctaaatccgt	ggaaaattat	ctagttttgt	ttttcagata	2400
agttgtaaac	actttgatag	ttaaaatgat	tgtttgtagt	gatcagaagc	agaaaatctg	2460
actagtttcc	gccccccccc	cctatacata	tgatgcacac	ttaaaatgtc	caagtgggtg	2520
ttgaatagca	aatcttgaaa	acgtaaaaac	aataattatt	ttctatatct	gtaaatatct	2580
tcaacgaatt	ttcagcttcc	aaatttttgg	cgttttttga	tctttttaca	aaaaaaatat	2640
tttatcaact	gacactgata	atattttctg	cctcatatta	aaaaatattc	ctctagcaaa	2700
aactgtaagt	tgaacgaatt	tacaataaaa	aacacagctg	cactgaccaa	aaaacaatta	2760
cactggccaa	aattgagctt	gcactgaccg	agtttagcga	ccatatcttt	tttgtcta	2820
ttgtggtgtg	tgcggcgaat	tcggcaaaat	tgctcgagctc	ggaaaacaga	aaatttggca	2880
aatttaccgc	aaactcttca	actgaagcca	ctattgcaca	ttactgtca	aaattctgga	2940
tataattagc	aaaacaataa	gtaacatttc	tgaaaaatta	gaacctttcc	cgcattgtat	3000
ttgtagacgc	acctaataaa	tttcaaaaca	ccaaaaaaca	agcttccagt	aaaaccctaa	3060
tattccaggt	attccgatgt	cgcgaagtgg	caacagatgc	gatgttcgcc	gtcaaagtgc	3120
tccagaagtc	gtacctcaac	cgccatcaaa	aaatggacgc	aatcattcgc	gagaagaata	3180
tcttaacata	cctgtcacia	gaatgcgggtg	gtcatccgtt	tgtcacacag	ctctacacac	3240
attttcacga	ccaggctaga	atttgtgagt	tttttccagc	gccaagggtt	ttttctgaac	3300
ccatcaaaat	ccacttgtga	tcattttatt	ccaataaaaa	cgtcaactta	aaaaaaaaaat	3360
taaacctcaa	ttaatattca	gatttccgtg	tcggacttgt	tgaaaatgg	gatcttggcg	3420
agtcgctgtg	ccatttttga	tcattcgaca	tgctcacctc	aaaattcttt	gcctcgga	3480
tcctcaccgg	actgcaattc	ctacacgaca	acaaaattgt	gcacagagac	atgaagccgg	3540
acaattgtgt	catccagaaa	gacggtcaca	ttctcatcac	agatttttga	agtgccagg	3600
cgtttggcgg	tctccaactg	tcacaggagg	gctttacgga	tgcgaaatcag	gcaagctcgc	3660
gatcttcgga	ttctggatcg	ccgcgcgcaa	ctcgattcta	ttcggaatgag	gagggtgaag	3720
ttttcggaaa	tttgactgaa	acaatttttg	ccagttccag	aagagaacac	tgctcgacgt	3780
accacatttg	ttggaactgc	tctctacgtg	agcccgagga	tgctagctga	cggagatgtg	3840
ggaccacagt	aagctccgat	tctttgtaga	atgtcaaatt	taacagttgg	atttcagaac	3900
cgacattttg	ggattgggat	gtatcctttt	ccagtgtcta	gccggacagc	caccattcag	3960
agccgtcaac	cagtaccatc	ttttgaaaag	aatccaggag	ttggatttct	cgttcccaga	4020
aggattttcca	gaggaagcgt	cggaaattat	cgcaaagatt	ttggtaggtt	gacatgaaac	4080
tttaaaaact	gaatacgtaa	ttttcaactt	acaggtgcgc	gacccgagta	cccgtatcac	4140
cagtcaagaa	cttatggctc	acaagttttt	tgaaaacggt	gactgggtga	acattgcaaa	4200
tatcaagcca	ccagtctctc	acgcctacat	tccagccaca	tttggcgagc	cggagtacta	4260
ctctaacatt	gggcctgtcg	agccgggact	tgatgatcgt	gccttggttc	gtttgatgaa	4320
tttgggaaat	gatgctagcg	catcacagcc	atcaacgtga	gtttgaagca	tttttttctt	4380
gcattaaaag	ttttaccttg	cactgaccaa	aattttattga	aactattaat	tatttgattc	4440
tgattaacaa	tgaccaaaaag	atttgaactg	acaaagtgca	aatttgcacc	gacaaaaaaa	4500
cagtttgcac	tgaccacctc	ttcatttgca	ctgaccacct	cttcatttgc	actgaccaac	4560
ttttcatttg	cactgaccat	ctcttcattt	gcactgacca	acttttcttt	tgcaattctg	4620
gcaatgatct	ttttgcatct	actgatcaaa	aattgattca	aatcaattaa	ttttctttga	4680

cagtactatg	ccttattcaa	ggagatgctg	atctgaaaat	tctcaatagt	tgataaaaaat	4740
tactaacc	ttagaaagtt	tcagaccgtc	taacgtggaa	catcgcgagg	acccatttgt	4800
ttcggaaatt	gcaccgtgag	tgatttgcac	ctaattgggt	atttttaata	atcattaaat	4860
tatagacgcg	ccaattcgga	agccgaaaag	aaccgcgcgc	cacgtgcgca	gaagctcgaa	4920
gagcaacgtg	tcaaaaaccc	attccacatc	ttcaccaaca	actcgctcat	tttgaaacaa	4980
ggatatttgg	aaaagaagcg	aggattgttt	gccagacgcc	gaatgttcct	gttgaccgaa	5040
ggaccgcac	tcttgtacat	tgatgtgccc	aatcttgtgc	tcaaaggaga	ggtaccatgg	5100
acgccgtgca	tgcaggtgga	gctaaaaaac	tcgggaactt	tctttataca	tacggtaggt	5160
cagaataatc	atagctgtct	atctcattat	agtactcaat	gaatctgaaa	atttcaaatt	5220
ttcagcccaa	ccgcgtctac	tacttgtttg	atctcgaaaa	gaaagcagat	gagtgggtga	5280
aggctatcaa	tgatgttcgc	aagcgggtact	cgggtgactat	cgaaaagact	tttaactctg	5340
cgatgcgtga	cggaacattt	ggcagcattt	atggaaagaa	aaagtccaga	aaggtatgaa	5400
ttactggaag	gccccctca	ctgagtttcc	agcaagttca	gagtttttta	ttggaatttt	5460
tgccaatttt	cattagactt	tagagcctat	tgctattttg	tggaacaggt	taaacatttt	5520
caaaaaaaaa	ttgagaaatg	tctgaaaaaa	tttggagtgt	gacagttttc	tgaattttga	5580
aaattctgtt	ctcaaaattg	gattttttaca	gagcttgttt	cgagattttca	taatccttca	5640
aaagaatata	gaatatttgt	gttcaacttt	tcttgtcaaa	atattttttt	tggacaatct	5700
agattctgga	aaattttcaa	aaaaagataa	tctctaaaca	aaactaaatt	caaaatgttc	5760
taaaggttct	ttattttcca	tgcaactcta	aaatcttccc	gtatattttt	ttggaaagtc	5820
ttatgatgtt	tagacggttt	aaattttttg	atgattttaa	ttttttaggg	gtggtctata	5880
attttggacc	accctgtata	attatggacc	accatgtaca	cttatagacc	acccagtaac	5940
aagcattttt	ggaccaccac	gcaaattctta	ttattatgga	ccacccaaac	ttagaacacc	6000
ttcaataactt	cttttctgtt	caaaaaatga	tcaacttgct	gaaaaaaaaat	tttttgtagg	6060
aatgatgcg	tgaacagaag	gcgctgcgcc	gcaaacaaga	aaaggaggag	aaaaaggcgc	6120
taaaagccga	gcaagtgagc	aagaagcttt	caatgcaaat	ggacaagaag	tcgccttgaa	6180
ggctcacctc	ccttctactc	cccacaaaat	caccatcaaa	caaatcacac	ttttgtatca	6240
ttttgcgtcc						6250

<210> 159

<211> 632

<212> PRT

<213> Caenorhabditis elegans

<400> 159

Met	Glu	Asp	Leu	Thr	Pro	Thr	Asn	Thr	Ser	Leu	Asp	Thr	Thr	Thr	Thr
1				5				10						15	
Asn	Asn	Asp	Thr	Thr	Ser	Asp	Arg	Glu	Ala	Ala	Pro	Thr	Thr	Leu	Asn
			20					25					30		
Leu	Thr	Pro	Thr	Ala	Ser	Glu	Ser	Glu	Asn	Ser	Leu	Ser	Pro	Val	Thr
			35					40					45		
Ala	Glu	Asp	Leu	Ile	Ala	Lys	Ser	Ile	Lys	Glu	Gly	Cys	Pro	Lys	Arg
			50				55				60				
Thr	Ser	Asn	Asp	Phe	Met	Phe	Leu	Gln	Ser	Met	Gly	Glu	Gly	Ala	Tyr
65					70					75				80	
Ser	Gln	Val	Phe	Arg	Cys	Arg	Glu	Val	Ala	Thr	Asp	Ala	Met	Phe	Ala
				85					90					95	
Val	Lys	Val	Leu	Gln	Lys	Ser	Tyr	Leu	Asn	Arg	His	Gln	Lys	Met	Asp
			100					105					110		
Ala	Ile	Ile	Arg	Glu	Lys	Asn	Ile	Leu	Thr	Tyr	Leu	Ser	Gln	Glu	Cys
			115				120					125			
Gly	Gly	His	Pro	Phe	Val	Thr	Gln	Leu	Tyr	Thr	His	Phe	His	Asp	Gln
			130				135				140				
Ala	Arg	Ile	Tyr	Phe	Val	Ile	Gly	Leu	Val	Glu	Asn	Gly	Asp	Leu	Gly
145					150					155				160	
Glu	Ser	Leu	Cys	His	Phe	Gly	Ser	Phe	Asp	Met	Leu	Thr	Ser	Lys	Phe
				165					170					175	
Phe	Ala	Ser	Glu	Ile	Leu	Thr	Gly	Leu	Gln	Phe	Leu	His	Asp	Asn	Lys



<210> 160  
 <211> 636  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 160  
 Met Glu Asp Leu Thr Pro Thr Asn Thr Ser Leu Asp Thr Thr Thr Thr  
 1 5 10 15  
 Asn Asn Asp Thr Thr Ser Asp Arg Glu Ala Ala Pro Thr Thr Leu Asn  
 20 25 30  
 Leu Thr Pro Thr Ala Ser Glu Ser Glu Asn Ser Leu Ser Pro Val Thr  
 35 40 45  
 Ala Glu Asp Leu Ile Ala Lys Ser Ile Lys Glu Gly Cys Pro Lys Arg  
 50 55 60  
 Thr Ser Asn Asp Phe Met Phe Leu Gln Ser Met Gly Glu Gly Ala Tyr  
 65 70 75 80  
 Ser Gln Val Phe Arg Cys Arg Glu Val Ala Thr Asp Ala Met Phe Ala  
 85 90 95  
 Val Lys Val Leu Gln Lys Ser Tyr Leu Asn Arg His Gln Lys Met Asp  
 100 105 110  
 Ala Ile Ile Arg Glu Lys Asn Ile Leu Thr Tyr Leu Ser Gln Glu Cys  
 115 120 125  
 Gly Gly His Pro Phe Val Thr Gln Leu Tyr Thr His Phe His Asp Gln  
 130 135 140  
 Ala Arg Ile Tyr Phe Val Ile Gly Leu Val Glu Asn Gly Asp Leu Gly  
 145 150 155 160  
 Glu Ser Leu Cys His Phe Gly Ser Phe Asp Met Leu Thr Ser Lys Phe  
 165 170 175  
 Phe Ala Ser Glu Ile Leu Thr Gly Leu Gln Phe Leu His Asp Asn Lys  
 180 185 190  
 Ile Val His Arg Asp Met Lys Pro Asp Asn Val Leu Ile Gln Lys Asp  
 195 200 205  
 Gly His Ile Leu Ile Thr Asp Phe Gly Ser Ala Gln Ala Phe Gly Gly  
 210 215 220  
 Leu Gln Leu Ser Gln Glu Gly Phe Thr Asp Ala Asn Gln Ala Ser Ser  
 225 230 235 240  
 Arg Ser Ser Asp Ser Gly Ser Pro Pro Pro Thr Arg Phe Tyr Ser Asp  
 245 250 255  
 Glu Glu Val Pro Glu Glu Asn Thr Ala Arg Arg Thr Thr Phe Val Gly  
 260 265 270  
 Thr Ala Leu Tyr Val Ser Pro Glu Met Leu Ala Asp Gly Asp Val Gly  
 275 280 285  
 Pro Gln Thr Asp Ile Trp Gly Leu Gly Cys Ile Leu Phe Gln Cys Leu  
 290 295 300  
 Ala Gly Gln Pro Pro Phe Arg Ala Val Asn Gln Tyr His Leu Leu Lys  
 305 310 315 320  
 Arg Ile Gln Glu Leu Asp Phe Ser Phe Pro Glu Gly Phe Pro Glu Glu  
 325 330 335  
 Ala Ser Glu Ile Ile Ala Lys Ile Leu Val Arg Asp Pro Ser Thr Arg  
 340 345 350  
 Ile Thr Ser Gln Glu Leu Met Ala His Lys Phe Phe Glu Asn Val Asp  
 355 360 365  
 Trp Val Asn Ile Ala Asn Ile Lys Pro Pro Val Leu His Ala Tyr Ile  
 370 375 380  
 Pro Ala Thr Phe Gly Glu Pro Glu Tyr Tyr Ser Asn Ile Gly Pro Val  
 385 390 395 400  
 Glu Pro Gly Leu Asp Arg Ala Leu Phe Arg Leu Met Asn Leu Gly  
 405 410 415  
 Asn Asp Ala Ser Ala Ser Gln Pro Ser Thr Phe Arg Pro Ser Asn Val





<212> PRT  
<213> Homo sapiens

<400> 163  
Ser Pro Gly Ser Gln Phe Ser Lys Trp Pro Ala Ser Pro Gly Ser His  
1 5 10 15  
Ser Asn Asp Asp Phe Asp Asn Trp Ser Thr Phe Arg Pro Arg Thr Ser  
20 25 30  
Ser Asn Ala Ser Thr Ile Ser Gly Arg Leu Ser Pro Ile Met Thr Glu  
35 40 45  
Gln Asp Asp Leu Gly Glu  
50

<210> 164  
<211> 17  
<212> PRT  
<213> Caenorhabditis elegans

<400> 164  
Ser Phe Arg Pro Arg Thr Gln Ser Asn Leu Ser Ile Pro Gly Ser Ser  
1 5 10 15  
Ser

<210> 165  
<211> 42  
<212> PRT  
<213> Homo sapiens

<400> 165  
Lys Ala Ala Ala Ile Ile Asp Leu Asp Pro Asp Phe Glu Pro Gln Ser  
1 5 10 15  
Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Pro Glu Ile Ala Asn  
20 25 30  
Gln Pro Ser Glu Pro Pro Glu Val Glu Pro  
35 40

<210> 166  
<211> 22  
<212> PRT  
<213> Homo sapiens

<400> 166  
Ala Asp Pro Asp Phe Glu Pro Arg Pro Arg Ser Cys Thr Trp Pro Leu  
1 5 10 15  
Pro Arg Pro Glu Ser Pro  
20

<210> 167  
<211> 42  
<212> PRT  
<213> Homo sapiens

<400> 167  
Glu Ala Pro Gln Val Val Glu Ile Asp Pro Asp Phe Glu Pro Leu Pro

1		5		10		15									
Arg	Pro	Arg	Ser	Cys	Thr	Trp	Pro	Leu	Pro	Arg	Pro	Glu	Phe	Ser	Gln
		20						25					30		
Ser	Asn	Ser	Ala	Thr	Ser	Ser	Pro	Ala	Pro						
		35					40								

<210> 168  
 <211> 41  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 168
Thr Phe Met Asn Thr Pro Asp Asp Val Met Met Asn Asp Asp Met Glu
1 5 10 15
Pro Ile Pro Arg Asp Arg Cys Asn Thr Trp Pro Met Arg Arg Pro Gln
20 25 30
Leu Glu Pro Pro Leu Asn Ser Ser Pro
35 40

<210> 169  
 <211> 14  
 <212> PRT  
 <213> Caenorhabditis elegans or Homo sapiens

<400> 169
Thr Pro Val Asp Glu Pro Pro Arg Arg Thr Trp Pro Arg Pro
1 5 10

<210> 170  
 <211> 80  
 <212> PRT  
 <213> Mus musculus or Homo sapiens

<400> 170
Leu Glu Lys Gln Ala Gly Gly Asn Pro Trp His Gln Phe Val Glu Asn
1 5 10 15
Asn Leu Ile Leu Lys Met Gly Pro Val Asp Lys Arg Lys Gly Leu Phe
20 25 30
Ala Arg Arg Arg Gln Leu Leu Leu Thr Glu Gly Pro His Leu Tyr Tyr
35 40 45
Val Asp Pro Val Asn Lys Val Leu Lys Gly Glu Ile Pro Trp Ser Gln
50 55 60
Glu Leu Arg Pro Glu Ala Lys Asn Phe Lys Thr Phe Phe Val His Thr
65 70 75 80

<210> 171  
 <211> 47  
 <212> PRT  
 <213> Mus musculus or Homo sapiens or C elegans

<400> 171
Leu Glu Gln Asn Pro His Phe Asn Leu Ile Leu Lys Gly Lys Gly Leu
1 5 10 15
Phe Ala Arg Arg Arg Leu Leu Thr Glu Gly Pro His Leu Tyr Asp Asn
20 25 30

Val Leu Lys Gly Glu Pro Trp Glu Lys Asn Thr Phe Phe His Thr  
 35 40 45

<210> 172  
 <211> 80  
 <212> PRT  
 <213> *Caenorhabditis elegans*

<400> 172  
 Leu Glu Glu Gln Arg Val Lys Asn Pro Phe His Ile Phe Thr Asn Asn  
 1 5 10 15  
 Ser Leu Ile Leu Lys Gln Gly Tyr Leu Glu Lys Lys Arg Gly Leu Phe  
 20 25 30  
 Ala Arg Arg Arg Met Phe Leu Leu Thr Glu Gly Pro His Leu Leu Tyr  
 35 40 45  
 Ile Asp Val Pro Asn Leu Val Leu Lys Gly Glu Val Pro Trp Thr Pro  
 50 55 60  
 Cys Met Gln Val Glu Leu Lys Asn Ser Gly Thr Phe Phe Ile His Thr  
 65 70 75 80

<210> 173  
 <211> 113  
 <212> PRT  
 <213> *Mus musculus* or *Homo sapiens*

<400> 173  
 Ser Asp Leu Trp Ala Leu Gly Cys Ile Ile Tyr Gln Leu Val Ala Gly  
 1 5 10 15  
 Leu Pro Pro Phe Arg Ala Gly Asn Glu Tyr Leu Ile Phe Gln Lys Ile  
 20 25 30  
 Ile Lys Leu Glu Tyr Asp Phe Pro Glu Lys Phe Phe Pro Lys Ala Arg  
 35 40 45  
 Asp Leu Val Glu Lys Leu Leu Val Leu Asp Ala Thr Lys Arg Leu Gly  
 50 55 60  
 Cys Glu Glu Met Glu Gly Tyr Gly Pro Leu Lys Ala His Pro Phe Phe  
 65 70 75 80  
 Glu Ser Val Thr Trp Glu Asn Leu His Gln Gln Thr Pro Pro Lys Leu  
 85 90 95  
 Thr Ala Tyr Leu Pro Ala Met Ser Glu Asp Asp Glu Asp Cys Tyr Gly  
 100 105 110  
 Asn

<210> 174  
 <211> 48  
 <212> PRT  
 <213> *Mus musculus* or *Homo sapiens* or *C. elegans*

<400> 174  
 Asp Trp Leu Gly Cys Ile Gln Ala Gly Pro Pro Phe Arg Ala Asn Tyr  
 1 5 10 15  
 Ile Leu Phe Pro Glu Phe Ala Lys Leu Val Leu Glu Pro Leu Ala His  
 20 25 30  
 Phe Phe Glu Val Trp Asn Pro Pro Leu Ala Tyr Pro Ala Glu Tyr Asn  
 35 40 45

<210> 175  
 <211> 122  
 <212> PRT  
 <213> *Caenorhabditis elegans*

<400> 175  
 Thr Asp Ile Trp Gly Leu Gly Cys Ile Leu Phe Gln Cys Leu Ala Gly  
 1 5 10 15  
 Gln Pro Pro Phe Arg Ala Val Asn Gln Tyr His Leu Leu Lys Arg Ile  
 20 25 30  
 Gln Glu Leu Asp Phe Ser Phe Pro Glu Gly Phe Pro Glu Glu Ala Ser  
 35 40 45  
 Glu Ile Ile Ala Lys Ile Leu Val Gly His Glu Thr Leu Lys Thr Glu  
 50 55 60  
 Tyr Val Ile Phe Asn Leu Gln Val Arg Asp Pro Ser Thr Arg Ile Thr  
 65 70 75 80  
 Ser Gln Glu Leu Met Ala His Lys Phe Phe Glu Asn Val Asp Trp Val  
 85 90 95  
 Asn Ile Ala Asn Ile Lys Pro Pro Val Leu His Ala Tyr Ile Pro Ala  
 100 105 110  
 Thr Phe Gly Glu Pro Glu Tyr Tyr Ser Asn  
 115 120

<210> 176  
 <211> 72  
 <212> PRT  
 <213> *Mus musculus* or *Homo sapiens*

<400> 176  
 Phe Gly Leu Ser Tyr Ala Lys Asn Gly Glu Leu Leu Lys Tyr Ile Arg  
 1 5 10 15  
 Lys Ile Gly Ser Phe Asp Glu Thr Cys Thr Arg Phe Tyr Thr Ala Glu  
 20 25 30  
 Ile Val Ser Ala Leu Glu Tyr Leu His Gly Lys Gly Ile Ile His Arg  
 35 40 45  
 Asp Leu Lys Pro Glu Asn Ile Leu Leu Asn Glu Asp Met His Ile Gln  
 50 55 60  
 Ile Thr Asp Phe Gly Thr Ala Lys  
 65 70

<210> 177  
 <211> 31  
 <212> PRT  
 <213> *Mus musculus* or *Homo sapiens* or *C. elegans*

<400> 177  
 Phe Asn Gly Leu Gly Ser Phe Asp Phe Glu Ile Leu Leu His Ile His  
 1 5 10 15  
 Arg Asp Lys Pro Asn Leu Asp His Ile Ile Thr Asp Phe Gly Ala  
 20 25 30

<210> 178  
 <211> 72  
 <212> PRT  
 <213> *Caenorhabditis elegans*

<400> 178  
Phe Val Ile Gly Leu Val Glu Asn Gly Asp Leu Gly Glu Ser Leu Cys  
1 5 10 15  
His Phe Gly Ser Phe Asp Met Leu Thr Ser Lys Phe Phe Ala Ser Glu  
20 25 30  
Ile Leu Thr Gly Leu Gln Phe Leu His Asp Asn Lys Ile Val His Arg  
35 40 45  
Asp Met Lys Pro Asp Asn Val Leu Ile Gln Lys Asp Gly His Ile Leu  
50 55 60  
Ile Thr Asp Phe Gly Ser Ala Gln  
65 70

<210> 179  
<211> 48  
<212> PRT  
<213> Mus musculus or Homo sapiens

<400> 179  
Tyr Ala Ile Lys Ile Leu Glu Lys Arg His Ile Ile Lys Glu Asn Lys  
1 5 10 15  
Val Pro Tyr Val Thr Arg Glu Arg Asp Val Met Ser Arg Leu Asp His  
20 25 30  
Pro Phe Phe Val Lys Leu Tyr Phe Thr Phe Gln Asp Asp Glu Lys Leu  
35 40 45

<210> 180  
<211> 15  
<212> PRT  
<213> Mus musculus or Homo sapiens or C elegans

<400> 180  
Ala Lys Leu Lys Lys Arg Glu Leu His Pro Phe Leu Tyr Phe Asp  
1 5 10 15

<210> 181  
<211> 53  
<212> PRT  
<213> Caenorhabditis elegans

<400> 181  
Phe Ala Val Lys Val Leu Gln Lys Ser Tyr Leu Asn Arg His Gln Lys  
1 5 10 15  
Met Asp Ala Ile Ile Arg Glu Lys Asn Ile Leu Thr Tyr Leu Ser Gln  
20 25 30  
Glu Cys Gly Gly His Pro Phe Val Thr Gln Leu Tyr Thr His Phe His  
35 40 45  
Asp Gln Ala Arg Ile  
50

<210> 182  
<211> 29  
<212> PRT  
<213> Mus musculus or Homo sapiens

<400> 182

Pro Asn Arg Thr Tyr Tyr Leu Met Asp Pro Ser Gly Asn Ala His Lys  
 1 5 10 15  
 Trp Cys Arg Lys Ile Gln Glu Val Trp Arg Gln Arg Tyr  
 20 25

<210> 183  
 <211> 15  
 <212> PRT  
 <213> Mus musculus or Homo sapiens or C elegans

<400> 183  
 Pro Asn Arg Tyr Tyr Leu Asp Ala Trp Cys Ile Val Arg Arg Tyr  
 1 5 10 15

<210> 184  
 <211> 28  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 184  
 Pro Asn Arg Val Tyr Tyr Leu Phe Asp Leu Glu Lys Lys Ala Asp Glu  
 1 5 10 15  
 Trp Cys Lys Ala Ile Asn Asp Val Arg Lys Arg Tyr  
 20 25

<210> 185  
 <211> 25  
 <212> PRT  
 <213> Mus musculus or Homo sapiens

<400> 185  
 Pro Glu Ser Lys Gln Ala Arg Ala Asn Ser Phe Val Gly Thr Ala Gln  
 1 5 10 15  
 Tyr Val Ser Pro Glu Leu Leu Thr Glu  
 20 25

<210> 186  
 <211> 15  
 <212> PRT  
 <213> Mus musculus or Homo sapiens or C elegans

<400> 186  
 Pro Glu Ala Arg Phe Val Gly Thr Ala Tyr Val Ser Pro Glu Leu  
 1 5 10 15

<210> 187  
 <211> 25  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 187  
 Pro Glu Glu Asn Thr Ala Arg Arg Thr Thr Phe Val Gly Thr Ala Leu  
 1 5 10 15  
 Tyr Val Ser Pro Glu Met Leu Ala Asp

<210> 188  
 <211> 62  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 188  
 Lys Arg Thr Ser Asn Asp Phe Met Phe Leu Gln Ser Met Gly Glu Gly  
 1 5 10 15  
 Ala Tyr Ser Gln Val Phe Arg Cys Arg Glu Val Ala Thr Asp Ala Met  
 20 25 30  
 Phe Ala Val Lys Val Leu Gln Lys Ser Tyr Leu Asn Arg His Gln Lys  
 35 40 45  
 Met Asp Ala Ile Ile Arg Glu Lys Asn Ile Leu Thr Tyr Leu  
 50 55 60

<210> 189  
 <211> 21  
 <212> PRT  
 <213> Caenorhabditis elegans or Homo sapiens

<400> 189  
 Lys Asp Phe Phe Gly Glu Gly Ser Val Arg Glu Ala Thr Ala Lys Leu  
 1 5 10 15  
 Lys Lys Arg Glu Leu  
 20

<210> 190  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

<400> 190  
 Lys Lys Arg Pro Glu Asp Phe Lys Phe Gly Lys Ile Leu Gly Glu Gly  
 1 5 10 15  
 Ser Phe Ser Thr Val Val Leu Ala Arg Glu Leu Ala Thr Ser Arg Glu  
 20 25 30  
 Tyr Ala Ile Lys Ile Leu Glu Lys Arg His Ile Ile Lys Glu Asn Lys  
 35 40 45  
 Val Pro Tyr Val Thr Arg Glu Arg Asp Val Met Ser Arg Leu  
 50 55 60

<210> 191  
 <211> 90  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 191  
 His Pro Phe Val Thr Gln Leu Tyr Thr His Phe His Asp Gln Ala Arg  
 1 5 10 15  
 Ile Tyr Phe Val Ile Gly Leu Val Glu Asn Gly Asp Leu Gly Glu Ser  
 20 25 30  
 Leu Cys His Phe Gly Ser Phe Asp Met Leu Thr Ser Lys Phe Phe Ala  
 35 40 45



Ser Glu Ile Leu Thr Gly Leu Gln Phe Leu His Asp Asn Lys Ile Val  
50 55 60  
His Arg Asp Met Lys Pro Asp Asn Val Leu Ile Gln Lys Asp Gly His  
65 70 75 80  
Ile Leu Ile Thr Asp Phe Gly Ser Ala Gln  
85 90

<210> 192  
<211> 39  
<212> PRT  
<213> Caenorhabditis elegans

<400> 192  
His Pro Phe Leu Tyr Phe Asp Tyr Phe Asn Gly Leu Gly Ser Phe Asp  
1 5 10 15  
Phe Glu Ile Leu Leu His Ile His Arg Asp Lys Pro Asn Leu Asp His  
20 25 30  
Ile Ile Thr Asp Phe Gly Ala  
35

<210> 193  
<211> 90  
<212> PRT  
<213> Homo sapiens

<400> 193  
His Pro Phe Phe Val Lys Leu Tyr Phe Thr Phe Gln Asp Asp Glu Lys  
1 5 10 15  
Leu Tyr Phe Gly Leu Ser Tyr Ala Lys Asn Gly Glu Leu Leu Lys Tyr  
20 25 30  
Ile Arg Lys Ile Gly Ser Phe Asp Glu Thr Cys Thr Arg Phe Tyr Thr  
35 40 45  
Ala Glu Ile Val Ser Ala Leu Glu Tyr Leu His Gly Lys Gly Ile Ile  
50 55 60  
His Arg Asp Leu Lys Pro Glu Asn Ile Leu Leu Asn Glu Asp Met His  
65 70 75 80  
Ile Gln Ile Thr Asp Phe Gly Thr Ala Lys  
85 90

<210> 194  
<211> 98  
<212> PRT  
<213> Caenorhabditis elegans

<400> 194  
Glu Glu Asn Thr Ala Arg Arg Thr Thr Phe Val Gly Thr Ala Leu Tyr  
1 5 10 15  
Val Ser Pro Glu Met Leu Ala Asp Gly Asp Val Gly Pro Gln Thr Asp  
20 25 30  
Ile Trp Gly Leu Gly Cys Ile Leu Phe Gln Cys Leu Ala Gly Gln Pro  
35 40 45  
Pro Phe Arg Ala Val Asn Gln Tyr His Leu Leu Lys Arg Ile Gln Glu  
50 55 60  
Leu Asp Phe Ser Phe Pro Glu Gly Phe Pro Glu Glu Ala Ser Glu Ile  
65 70 75 80  
Ile Ala Lys Ile Leu Val Arg Asp Pro Ser Thr Arg Ile Thr Ser Gln

85 90 95

Glu Leu

<210> 195  
 <211> 43  
 <212> PRT  
 <213> Caenorhabditis elegans or Homo sapiens

<400> 195  
 Glu Ala Arg Phe Val Gly Thr Ala Tyr Val Ser Pro Glu Leu Asp Trp  
 1 5 10 15  
 Leu Gly Cys Ile Gln Ala Gly Pro Pro Phe Arg Ala Asn Tyr Ile Leu  
 20 25 30  
 Phe Pro Glu Phe Ala Lys Leu Val Asp Arg Glu  
 35 40

<210> 196  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 196  
 Glu Ser Lys Gln Ala Arg Ala Asn Ser Phe Val Gly Thr Ala Gln Tyr  
 1 5 10 15  
 Val Ser Pro Glu Leu Leu Thr Glu Lys Ser Ala Cys Lys Ser Ser Asp  
 20 25 30  
 Leu Trp Ala Leu Gly Cys Ile Ile Tyr Gln Leu Val Ala Gly Leu Pro  
 35 40 45  
 Pro Phe Arg Ala Gly Asn Glu Tyr Leu Ile Phe Gln Lys Ile Ile Lys  
 50 55 60  
 Leu Glu Tyr Asp Phe Pro Glu Lys Phe Phe Pro Lys Ala Arg Asp Leu  
 65 70 75 80  
 Val Glu Lys Leu Leu Val Leu Asp Ala Thr Lys Arg Leu Gly Cys Glu  
 85 90 95

Glu Met

<210> 197  
 <211> 35  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 197  
 Leu Met Ala His Lys Phe Phe Glu Asn Val Asp Trp Val Asn Ile Ala  
 1 5 10 15  
 Asn Ile Lys Pro Pro Val Leu His Ala Tyr Ile Pro Ala Thr Phe Gly  
 20 25 30  
 Glu Pro Glu  
 35

<210> 198  
 <211> 17  
 <212> PRT  
 <213> Caenorhabditis elegans or Homo sapiens

<400> 198

Leu Ala His Phe Phe Glu Val Trp Asn Pro Pro Leu Ala Tyr Pro Ala  
1 5 10 15  
Glu

<210> 199

<211> 35

<212> PRT

<213> Homo sapiens

<400> 199

Leu Lys Ala His Pro Phe Phe Glu Ser Val Thr Trp Glu Asn Leu His  
1 5 10 15  
Gln Gln Thr Pro Pro Lys Leu Thr Ala Tyr Leu Pro Ala Met Ser Glu  
20 25 30  
Asp Asp Glu  
35

<210> 200

<211> 104

<212> PRT

<213> Caenorhabditis elegans

<400> 200

Leu Glu Glu Gln Arg Val Lys Asn Pro Phe His Ile Phe Thr Asn Asn  
1 5 10 15  
Ser Leu Ile Leu Lys Gln Gly Tyr Leu Glu Lys Lys Arg Gly Leu Phe  
20 25 30  
Ala Arg Arg Arg Met Phe Leu Leu Thr Glu Gly Pro His Leu Leu Tyr  
35 40 45  
Ile Asp Val Pro Asn Leu Val Leu Lys Gly Glu Val Pro Trp Thr Pro  
50 55 60  
Cys Met Gln Val Glu Leu Lys Asn Ser Gly Thr Phe Phe Ile His Thr  
65 70 75 80  
Pro Asn Arg Val Tyr Tyr Leu Phe Asp Leu Glu Lys Lys Ala Asp Glu  
85 90 95  
Trp Cys Lys Ala Ile Asn Asp Val  
100

<210> 201

<211> 59

<212> PRT

<213> Caenorhabditis elegans or Homo sapiens

<400> 201

Leu Glu Gln Asn Pro His Phe Asn Leu Ile Leu Lys Gly Lys Gly Leu  
1 5 10 15  
Phe Ala Arg Arg Arg Leu Leu Thr Glu Gly Pro His Leu Tyr Asp Asn  
20 25 30  
Val Leu Lys Gly Glu Pro Trp Glu Lys Asn Thr Phe Phe His Thr Pro  
35 40 45  
Asn Arg Tyr Tyr Leu Asp Ala Trp Cys Ile Val  
50 55

<210> 202  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 202  
 Leu Glu Lys Gln Ala Gly Gly Asn Pro Trp His Gln Phe Val Glu Asn  
 1 5 10 15  
 Asn Leu Ile Leu Lys Met Gly Pro Val Asp Lys Arg Lys Gly Leu Phe  
 20 25 30  
 Ala Arg Arg Arg Gln Leu Leu Leu Thr Glu Gly Pro His Leu Tyr Tyr  
 35 40 45  
 Val Asp Pro Val Asn Lys Val Leu Lys Gly Glu Ile Pro Trp Ser Gln  
 50 55 60  
 Glu Leu Arg Pro Glu Ala Lys Asn Phe Lys Thr Phe Phe Val His Thr  
 65 70 75 80  
 Pro Asn Arg Thr Tyr Leu Met Asp Pro Ser Gly Asn Ala His Lys  
 85 90 95  
 Trp Cys Arg Lys Ile Gln Glu Val  
 100

<210> 203  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<400> 203  
 Lys Leu Glu Asn Leu Met Leu Asp Lys Asp Gly His Ile Lys Ile Thr  
 1 5 10 15  
 Asp Phe Gly Leu Cys Lys Glu Gly Ile Lys Asp Gly Ala Thr Met Lys  
 20 25 30  
 Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val  
 35 40 45

<210> 204  
 <211> 36  
 <212> PRT  
 <213> Homo sapiens or Caenorhabditis elegans

<400> 204  
 Lys Leu Glu Asn Leu Leu Asp Lys Asp Gly His Ile Lys Ile Asp Phe  
 1 5 10 15  
 Gly Leu Cys Lys Glu Ile Gly Thr Phe Cys Gly Thr Pro Glu Tyr Leu  
 20 25 30  
 Ala Pro Glu Val  
 35

<210> 205  
 <211> 45  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 205  
 Lys Leu Glu Asn Leu Leu Leu Asp Lys Asp Gly His Ile Lys Ile Ala  
 1 5 10 15  
 Asp Phe Gly Leu Cys Lys Glu Glu Ile Ser Phe Gly Asp Lys Thr Ser



Ile Gly Leu Asn Cys Gly Phe Ser Ser Ala Leu Val Pro Met Phe Leu  
 145 150 155 160  
 Thr Glu Ile Ser Pro Asn Asn Leu Arg Gly Met Leu Gly Ser Leu His  
 165 170 175  
 Gln Leu Leu Val Thr Ile Ala Ile Leu Val Ser Gln Ile Phe Gly Leu  
 180 185 190  
 Pro His Leu Leu Gly Thr Gly Asp Arg Trp Pro Leu Ile Phe Ala Phe  
 195 200 205  
 Thr Val Val Pro Ala Val Leu Gln Leu Ala Leu Leu Met Leu Cys Pro  
 210 215 220  
 Glu Ser Pro Lys Tyr Thr Met Ala Val Arg Gly Gln Arg Asn Glu Ala  
 225 230 235 240  
 Glu Ser Ala Leu Lys Lys Leu Arg Asp Thr Glu Asp Val Ser Thr Glu  
 245 250 255  
 Ile Glu Ala Met Gln Glu Glu Ala Thr Ala Ala Gly Val Gln Glu Lys  
 260 265 270  
 Pro Lys Met Gly Asp Met Phe Lys Gly Ala Leu Leu Trp Pro Met Ser  
 275 280 285  
 Ile Ala Ile Met Met Met Leu Ala Gln Gln Leu Ser Gly Ile Asn Val  
 290 295 300  
 Ala Met Phe Tyr Ser Thr Val Ile Phe Arg Gly Ala Gly Leu Thr Gly  
 305 310 315 320  
 Asn Glu Pro Phe Tyr Ala Thr Ile Gly Met Gly Ala Val Asn Val Ile  
 325 330 335  
 Met Thr Leu Ile Ser Val Trp Leu Val Asp His Pro Lys Phe Gly Arg  
 340 345 350  
 Arg Ser Leu Leu Leu Ala Gly Leu Thr Gly Met Phe Val Ser Thr Leu  
 355 360 365  
 Leu Leu Val Gly Ala Leu Thr Ile Gln Asn Ser Gly Gly Asp Lys Trp  
 370 375 380  
 Ala Ser Tyr Ser Ala Ile Gly Phe Val Leu Leu Phe Val Ile Ser Phe  
 385 390 395 400  
 Ala Thr Gly Pro Gly Ala Ile Pro Trp Phe Phe Val Ser Glu Ile Phe  
 405 410 415  
 Asp Ser Ser Ala Arg Gly Asn Ala Asn Ser Ile Ala Val Met Val Asn  
 420 425 430  
 Trp Ala Ala Asn Leu Leu Val Gly Leu Thr Phe Leu Pro Ile Asn Asn  
 435 440 445  
 Leu Met Gln Gln Tyr Ser Phe Phe Ile Phe Ser Gly Phe Leu Ala Phe  
 450 455 460  
 Phe Ile Phe Tyr Thr Trp Lys Phe Val Pro Glu Thr Lys Gly Lys Ser  
 465 470 475 480  
 Ile Glu Gln Ile Gln Ala Glu Phe Glu Lys Arg Lys  
 485 490

<210> 209

<211> 22

<212> PRT

<213> *Caenorhabditis elegans*

<400> 209

Arg Asn Glu Ala Glu Ser Ala Leu Lys Lys Leu Arg Asp Thr Glu Asp  
 1 5 10 15  
 Val Ser Thr Glu Ile Glu  
 20

<210> 210

<211> 28  
 <212> DNA  
 <213> Caenorhabditis elegans

<400> 210  
 tctcgttggtt tgccgtcgga tgtctgcc

28

<210> 211  
 <211> 223  
 <212> PRT  
 <213> Ascoris suum

<400> 211  
 Ala Lys Asn Asn Gly Glu Phe Val Arg Cys Val His Ser Val Gly Gln  
 1 5 10 15  
 Pro Lys Pro Val Ala Thr Lys Val Ile Asn His Trp Pro Cys Asn Pro  
 20 25 30  
 Glu Lys Thr Ile Ile Ala His Arg Pro Ala Glu Arg Glu Ile Trp Ser  
 35 40 45  
 Phe Gly Ser Gly Tyr Gly Gly Asn Ser Leu Leu Gly Lys Lys Cys Phe  
 50 55 60  
 Ala Leu Arg Ile Ala Met Asn Ile Gly Tyr Asp Glu Gly Trp Met Ala  
 65 70 75 80  
 Glu His Met Leu Ile Met Gly Val Thr Ser Pro Lys Gly Glu Glu Arg  
 85 90 95  
 Phe Val Ala Ala Ala Phe Pro Ser Ala Cys Gly Lys Thr Asn Leu Ala  
 100 105 110  
 Met Leu Glu Pro Thr Ile Pro Gly Trp Lys Val Arg Val Ile Gly Asp  
 115 120 125  
 Asp Ile Ala Trp Met Lys Phe Gly Ala Asp Gly Arg Leu Tyr Ala Ile  
 130 135 140  
 Asn Pro Glu Tyr Gly Phe Phe Gly Val Ala Pro Gly Thr Ser His Lys  
 145 150 155 160  
 Thr Asn Pro Met Ala Met Ala Ser Phe Gln Glu Asn Thr Ile Phe Thr  
 165 170 175  
 Asn Val Ala Glu Thr Ala Asp Gly Glu Tyr Phe Trp Glu Gly Leu Glu  
 180 185 190  
 His Glu Val Lys Asn Pro Lys Val Asp Met Ile Asn Trp Leu Gly Glu  
 195 200 205  
 Pro Trp His Ile Gly Asp Glu Ser Lys Ala Ala His Pro Asn Ser  
 210 215 220

<210> 212  
 <211> 176  
 <212> PRT  
 <213> Caenorhabditis elegans or Ascoris suum

<400> 212  
 Ala Asn Phe Val Arg Cys His Ser Val Gly Pro Pro Val Val Ile Asn  
 1 5 10 15  
 His Trp Pro Cys Asn Pro Glu Ile Ala His Arg Pro Glu Arg Glu Ile  
 20 25 30  
 Trp Ser Phe Gly Ser Gly Tyr Gly Gly Asn Ser Leu Leu Gly Lys Lys  
 35 40 45  
 Cys Phe Ala Leu Arg Ile Ala Asn Ile Asp Glu Gly Trp Met Ala Glu  
 50 55 60  
 His Met Leu Ile Met Gly Val Thr Pro Gly Glu Phe Ala Ala Ala Phe  
 65 70 75 80

Pro Ser Ala Cys Gly Lys Thr Asn Leu Ala Met Leu Glu Pro Thr Pro  
85 90 95  
Gly Trp Lys Val Arg Gly Asp Asp Ile Ala Trp Met Lys Phe Gly Asp  
100 105 110  
Gly Arg Leu Tyr Ala Ile Asn Pro Glu Gly Phe Phe Gly Val Ala Pro  
115 120 125  
Gly Thr Ser Lys Thr Asn Pro Met Ala Ala Phe Gln Asn Ile Phe Thr  
130 135 140  
Asn Val Ala Glu Thr Ala Gly Glu Tyr Phe Trp Glu Gly Leu Glu Glu  
145 150 155 160  
Val Asp Trp Leu Gly Glu Trp His Ile Gly Ala Ala His Pro Asn Ser  
165 170 175

<210> 213  
<211> 223  
<212> PRT  
<213> Caenorhabditis elegans

<400> 213  
Ala Leu Gly Asn Gln Asp Phe Val Arg Cys Ile His Ser Val Gly Leu  
1 5 10 15  
Pro Arg Pro Val Lys Gln Arg Val Ile Asn His Trp Pro Cys Asn Pro  
20 25 30  
Glu Arg Val Leu Ile Ala His Arg Pro Pro Glu Arg Glu Ile Trp Ser  
35 40 45  
Phe Gly Ser Gly Tyr Gly Gly Asn Ser Leu Leu Gly Lys Lys Cys Phe  
50 55 60  
Ala Leu Arg Ile Ala Ser Asn Ile Ala Lys Asp Glu Gly Trp Met Ala  
65 70 75 80  
Glu His Met Leu Ile Met Gly Val Thr Arg Pro Cys Gly Arg Glu His  
85 90 95  
Phe Ile Ala Ala Ala Phe Pro Ser Ala Cys Gly Lys Thr Asn Leu Ala  
100 105 110  
Met Leu Glu Pro Thr Leu Pro Gly Trp Lys Val Arg Cys Val Gly Asp  
115 120 125  
Asp Ile Ala Trp Met Lys Phe Gly Glu Asp Gly Arg Leu Tyr Ala Ile  
130 135 140  
Asn Pro Glu Ala Gly Phe Phe Gly Val Ala Pro Gly Thr Ser Asn Lys  
145 150 155 160  
Thr Asn Pro Met Ala Val Ala Thr Phe Gln Lys Asn Ser Ile Phe Thr  
165 170 175  
Asn Val Ala Glu Thr Ala Asn Gly Glu Tyr Phe Trp Glu Gly Leu Glu  
180 185 190  
Asp Glu Ile Ala Asp Lys Asn Val Asp Ile Thr Thr Trp Leu Gly Glu  
195 200 205  
Lys Trp His Ile Gly Glu Pro Gly Val Ala Ala His Pro Asn Ser  
210 215 220

<210> 214  
<211> 173  
<212> PRT  
<213> Ascoris suum

<400> 214  
Lys Gly Asp Phe Val Ser Leu Pro Lys His Val Gln Arg Phe Val Ala  
1 5 10 15  
Glu Lys Ala Glu Leu Met Lys Pro Ser Ala Ile Phe Ile Cys Asp Gly



			20					25					30				
Ser	Gln	Asn	Glu	Ala	Asp	Glu	Leu	Ile	Ala	Arg	Cys	Val	Glu	Arg	Gly		
		35					40					45					
Val	Leu	Val	Pro	Leu	Lys	Ala	Tyr	Lys	Asn	Asn	Tyr	Leu	Cys	Arg	Thr		
	50					55					60						
Asp	Pro	Arg	Asp	Val	Ala	Arg	Val	Glu	Ser	Lys	Thr	Trp	Met	Ile	Thr		
65					70					75				80			
Pro	Glu	Lys	Tyr	Asp	Ser	Val	Cys	His	Thr	Pro	Glu	Gly	Val	Lys	Pro		
				85				90					95				
Met	Met	Gly	Gln	Trp	Met	Ser	Pro	Asp	Glu	Phe	Gly	Lys	Glu	Leu	Asp		
			100					105					110				
Asp	Arg	Phe	Pro	Gly	Cys	Met	Ala	Gly	Arg	Thr	Met	Tyr	Val	Ile	Pro		
	115						120					125					
Tyr	Ser	Met	Gly	Pro	Val	Gly	Gly	Pro	Leu	Ser	Lys	Ile	Gly	Ile	Glu		
	130					135					140						
Leu	Thr	Asp	Ser	Asp	Tyr	Val	Val	Leu	Cys	Met	Arg	Ile	Met	Thr	Arg		
145					150					155					160		
Met	Gly	Glu	Pro	Val	Leu	Lys	Ala	Leu	Ala	Lys	Asn	Asn					
				165				170									

<210> 215  
 <211> 120  
 <212> PRT  
 <213> Caenorhabditis elegans or Ascoris suum

<400> 215  
 Gly Asp Phe Leu Pro Val Gln Arg Phe Ala Glu Lys Ala Glu Leu Met  
 1 5 10 15  
 Pro Ile Phe Ile Cys Asp Gly Ser Gln Glu Ala Asp Glu Leu Ile Glu  
 20 25 30  
 Arg Gly Leu Leu Ala Tyr Asn Asn Tyr Cys Arg Thr Asp Pro Asp Val  
 35 40 45  
 Ala Arg Val Glu Ser Lys Thr Trp Met Thr Lys Tyr Asp Val His Thr  
 50 55 60  
 Glu Gly Val Pro Met Gly Trp Pro Glu Leu Asp Arg Phe Pro Gly Cys  
 65 70 75 80  
 Met Ala Gly Arg Met Tyr Val Ile Pro Ser Met Gly Pro Val Gly Gly  
 85 90 95  
 Pro Leu Ser Lys Ile Gly Ile Leu Thr Asp Ser Tyr Val Val Leu Met  
 100 105 110  
 Arg Ile Met Thr Arg Val Ala Leu  
 115 120

<210> 216  
 <211> 173  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 216  
 Gln Gly Asp Phe His Leu Leu Pro Ala Lys Val Gln Arg Phe Ile Ala  
 1 5 10 15  
 Glu Lys Ala Glu Leu Met Arg Pro Arg Gly Ile Phe Ile Cys Asp Gly  
 20 25 30  
 Ser Gln His Glu Ala Asp Glu Leu Ile Asp Lys Leu Ile Glu Arg Gly  
 35 40 45  
 Met Leu Ser Lys Leu Glu Ala Tyr Glu Asn Asn Tyr Ile Cys Arg Thr  
 50 55 60

Asp Pro Lys Asp Val Ala Arg Val Glu Ser Lys Thr Trp Met Val Thr  
 65 70 75 80  
 Lys Asn Lys Tyr Asp Thr Val Thr His Thr Lys Glu Gly Val Glu Pro  
 85 90 95  
 Ile Met Gly His Trp Leu Ala Pro Glu Asp Leu Ala Thr Glu Leu Asp  
 100 105 110  
 Ser Arg Phe Pro Gly Cys Met Ala Gly Arg Ile Met Tyr Val Ile Pro  
 115 120 125  
 Phe Ser Met Gly Pro Val Gly Gly Pro Leu Ser Lys Ile Gly Ile Gln  
 130 135 140  
 Leu Thr Asp Ser Asn Tyr Val Val Leu Ser Met Arg Ile Met Thr Arg  
 145 150 155 160  
 Val Asn Asn Asp Val Trp Asp Ala Leu Gly Asn Gln Asp  
 165 170

<210> 217  
 <211> 107  
 <212> PRT  
 <213> Ascoris suum

<400> 217  
 Arg Phe Thr Ala Pro Ala Gly Gln Cys Pro Ile Ile His Pro Asp Trp  
 1 5 10 15  
 Glu Lys Pro Glu Gly Val Pro Ile Asp Ala Ile Ile Phe Gly Gly Arg  
 20 25 30  
 Arg Pro Glu Gly Val Pro Leu Val Phe Glu Ser Arg Ser Trp Val His  
 35 40 45  
 Gly Ile Phe Val Gly Ala Cys Val Lys Ser Glu Ala Thr Ala Ala Ala  
 50 55 60  
 Glu His Thr Gly Lys Gln Val Met His Asp Pro Met Ala Met Arg Pro  
 65 70 75 80  
 Phe Met Gly Tyr Asn Phe Gly Arg Tyr Met Arg His Trp Met Lys Leu  
 85 90 95  
 Gly Gln Pro Pro His Lys Val Pro Lys Ile Phe  
 100 105

<210> 218  
 <211> 77  
 <212> PRT  
 <213> Caenorhabditis elegans or Ascoris suum

<400> 218  
 Arg Phe Ala Pro Ala Gln Cys Pro Ile Ile His Pro Asp Trp Glu Pro  
 1 5 10 15  
 Gly Val Pro Ile Ala Ile Ile Phe Gly Gly Arg Arg Pro Gly Val Pro  
 20 25 30  
 Leu Glu Ser Trp His Gly Phe Gly Cys Lys Ser Glu Ala Thr Ala Ala  
 35 40 45  
 Ala Glu Thr Gly Lys Val Met His Asp Pro Met Ala Met Arg Pro Phe  
 50 55 60  
 Met Gly Tyr Asn Phe Gly Tyr His Trp Leu Lys Val Phe  
 65 70 75

<210> 219  
 <211> 107  
 <212> PRT

<213> Caenorhabditis elegans

<400> 219

```
Arg Phe Ala Ala Pro Ala Asn Gln Cys Pro Ile Ile His Pro Asp Trp
 1          5          10          15
Glu Ser Pro Gln Gly Val Pro Ile Glu Ala Ile Ile Phe Gly Gly Arg
 20          25          30
Arg Pro Gln Gly Val Pro Leu Ile Tyr Glu Thr Asn Ser Trp Glu His
 35          40          45
Gly Val Phe Thr Gly Ser Cys Leu Lys Ser Glu Ala Thr Ala Ala Ala
 50          55          60
Glu Phe Thr Gly Lys Thr Val Met His Asp Pro Met Ala Met Arg Pro
 65          70          75          80
Phe Met Gly Tyr Asn Phe Gly Lys Tyr Leu Gln His Trp Leu Asp Leu
 85          90          95
Lys Thr Asp Ser Arg Lys Val Ile Asp Phe Phe
100          105
```

<210> 220

<211> 116

<212> PRT

<213> Ascoris suum

<400> 220

```
Val Pro Lys Ile Phe His Val Asn Trp Phe Arg Gln Ser Ala Asp His
 1          5          10          15
Lys Phe Leu Trp Pro Gly Tyr Gly Asp Asn Ile Arg Val Ile Asp Trp
 20          25          30
Ile Leu Arg Arg Cys Ser Gly Asp Ala Thr Ile Ala Glu Glu Thr Pro
 35          40          45
Ile Gly Phe Ile Pro Lys Lys Gly Thr Ile Asn Leu Glu Gly Leu Pro
 50          55          60
Asn Val Asn Trp Asp Glu Leu Met Ser Ile Pro Lys Ser Tyr Trp Leu
 65          70          75          80
Glu Asp Met Val Glu Thr Lys Thr Phe Phe Glu Asn Gln Val Gly Ser
 85          90          95
Asp Leu Pro Pro Glu Ile Ala Lys Glu Leu Glu Ala Gln Thr Glu Arg
100          105          110
Ile Lys Ala Leu
115
```

<210> 221

<211> 68

<212> PRT

<213> Caenorhabditis elegans or Ascoris suum

<400> 221

```
Pro Lys Ile His Val Asn Trp Phe Arg Lys Phe Leu Trp Pro Gly Gly
 1          5          10          15
Asp Asn Ile Arg Val Ile Asp Trp Ile Arg Arg Gly Ile Glu Thr Pro
 20          25          30
Ile Gly Pro Lys Gly Ile Asn Leu Glu Gly Leu Val Asn Trp Asp Glu
 35          40          45
Leu Met Ser Pro Tyr Trp Asp Glu Phe Gln Val Gly Asp Leu Pro Glu
 50          55          60
Ala Gln Arg Leu
65
```

<210> 222  
 <211> 116  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 222  
 Met Pro Lys Ile Tyr His Val Asn Trp Phe Arg Lys Asp Ser Asn Asn  
 1 5 10 15  
 Lys Phe Leu Trp Pro Gly Phe Gly Asp Asn Ile Arg Val Ile Asp Trp  
 20 25 30  
 Ile Ile Arg Arg Leu Asp Gly Glu Gln Glu Ile Gly Val Glu Thr Pro  
 35 40 45  
 Ile Gly Thr Val Pro Ala Lys Gly Ser Ile Asn Leu Glu Gly Leu Gly  
 50 55 60  
 Glu Val Asn Trp Asp Glu Leu Met Ser Val Pro Ala Asp Tyr Trp Lys  
 65 70 75 80  
 Gln Asp Ala Gln Glu Ile Arg Lys Phe Leu Asp Glu Gln Val Gly Glu  
 85 90 95  
 Asp Leu Pro Glu Pro Val Arg Ala Glu Met Asp Ala Gln Glu Lys Arg  
 100 105 110  
 Val Gln Thr Leu  
 115

<210> 223  
 <211> 36  
 <212> PRT  
 <213> Ascoris suum

<400> 223  
 Ser Leu Ser His Phe Lys Asp Asp Asp Phe Ala Val Val Ser Glu Val  
 1 5 10 15  
 Val Thr His Lys Gln Asn His Ile Pro Val Ile Lys Gly Asp Phe Val  
 20 25 30  
 Ser Leu Pro Lys  
 35

<210> 224  
 <211> 15  
 <212> PRT  
 <213> Caenorhabditis elegans or Ascoris suum

<400> 224  
 Ser Leu Asp Phe Val Val Glu Val Val His Pro Lys Phe Ser Lys  
 1 5 10 15

<210> 225  
 <211> 36  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 225  
 Ser Leu Arg Gln Ile Ser Glu Asp Ala Phe Tyr Val Val Asn Glu Val  
 1 5 10 15  
 Val Met Lys Arg Leu Gly His Val Pro Ile Leu Lys Val Ile Phe Glu  
 20 25 30

Ser Ser Glu Lys  
35

<210> 226  
<211> 25  
<212> PRT  
<213> Ascoris suum

<400> 226  
Gly Cys Met Ala Gly Arg Thr Met Tyr Val Ile Pro Tyr Ser Met Gly  
1 5 10 15  
Pro Val Gly Gly Pro Leu Ser Lys Ile  
20 25

<210> 227  
<211> 9  
<212> PRT  
<213> Caenorhabditis elegans or Ascoris suum

<400> 227  
Gly Cys Arg Val Pro Ser Pro Leu Lys  
1 5

<210> 228  
<211> 25  
<212> PRT  
<213> Caenorhabditis elegans

<400> 228  
Gly Cys Ser Gly Arg Arg Val Leu Cys Val Cys Pro Cys Ser His Ser  
1 5 10 15  
Ser Ser Ala Leu Pro Leu Gln Lys Val  
20 25

<210> 229  
<211> 16  
<212> PRT  
<213> Ascoris suum

<400> 229  
Leu Pro Asn Val Asn Trp Asp Glu Leu Met Ser Ile Pro Lys Ser Tyr  
1 5 10 15

<210> 230  
<211> 7  
<212> PRT  
<213> Caenorhabditis elegans or Ascoris suum

<400> 230  
Leu Asn Trp Ser Pro Ser Tyr  
1 5

<210> 231

<211> 16  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 231  
 Leu Glu Ser Phe Asn Trp Phe Ser Phe Val Ser Cys Pro Asp Ser Tyr  
 1 5 10 15

<210> 232  
 <211> 14  
 <212> PRT  
 <213> Ascoris suum

<400> 232  
 Ser Val Cys His Thr Pro Glu Gly Val Lys Pro Met Met Gly  
 1 5 10

<210> 233  
 <211> 6  
 <212> PRT  
 <213> Caenorhabditis elegans or Ascoris suum

<400> 233  
 Val His Pro Pro Met Gly  
 1 5

<210> 234  
 <211> 14  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 234  
 Thr Val Met His Asp Pro Met Ala Met Arg Pro Phe Met Gly  
 1 5 10

<210> 235  
 <211> 197  
 <212> PRT  
 <213> Homo sapiens

<400> 235  
 Ser Gly Phe Phe Asp Tyr Gly Ser Phe Ser Glu Ile Met Gln Pro Trp  
 1 5 10 15  
 Ala Gln Thr Val Val Val Gly Arg Ala Arg Leu Gly Gly Ile Pro Val  
 20 25 30  
 Gly Val Val Ala Val Glu Thr Arg Thr Val Glu Leu Ser Val Pro Ala  
 35 40 45  
 Asp Pro Ala Asn Leu Asp Ser Glu Ala Lys Ile Ile Gln Gln Ala Gly  
 50 55 60  
 Gln Val Trp Phe Pro Asp Ser Ala Phe Lys Thr Tyr Gln Ala Ile Lys  
 65 70 75 80  
 Asp Phe Asn Arg Glu Gly Leu Pro Leu Met Val Phe Ala Asn Trp Arg  
 85 90 95  
 Gly Phe Ser Gly Gly Met Lys Asp Met Tyr Asp Gln Val Leu Lys Phe  
 100 105 110

Gly Ala Tyr Ile Val Asp Gly Leu Arg Glu Cys Ser Gln Pro Val Met  
           115                          120                          125  
 Val Tyr Ile Pro Pro Gln Ala Glu Leu Arg Gly Gly Ser Trp Val Val  
           130                          135                          140  
 Ile Asp Pro Thr Ile Asn Pro Arg His Met Glu Met Tyr Ala Asp Arg  
 145                          150                          155                          160  
 Glu Ser Arg Gly Ser Val Leu Glu Pro Glu Gly Thr Val Glu Ile Lys  
                           165                          170                          175  
 Phe Arg Lys Lys Asp Leu Val Lys Thr Met Arg Arg Val Asp Pro Val  
                           180                          185                          190  
 Tyr Ile Arg Leu Ala  
           195

<210> 236  
 <211> 109  
 <212> PRT  
 <213> Caenorhabditis elegans or Homo sapiens

<400> 236  
 Gly Asp Ser Phe Glu Ile Trp Ala Val Gly Arg Ala Arg Leu Gly Ile  
   1                          5                          10                          15  
 Pro Gly Val Val Glu Arg Val Pro Ala Asp Pro Ala Ser Gln Ala Gly  
                           20                          25                          30  
 Gln Val Trp Pro Asp Ser Ala Phe Lys Thr Ala Ile Asp Asn Glu Leu  
                           35                          40                          45  
 Pro Leu Met Ala Arg Gly Phe Ser Gly Gly Lys Asp Met Tyr Asp Val  
                           50                          55                          60  
 Leu Lys Phe Gly Ala Ile Val Asp Leu Pro Val Val Tyr Ile Pro Glu  
 65                          70                          75                          80  
 Leu Arg Gly Gly Trp Val Asp Ile Pro Ala Asp Ser Arg Gly Leu Glu  
                           85                          90                          95  
 Pro Val Ile Lys Phe Arg Lys Met Arg Asp Pro Tyr Leu  
                           100                          105

<210> 237  
 <211> 197  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 237  
 Thr Gly Ile Cys Asp Thr Met Ser Phe Asp Glu Ile Cys Gly Asp Trp  
   1                          5                          10                          15  
 Ala Lys Ser Ile Val Ala Gly Arg Ala Arg Leu Cys Gly Ile Pro Ile  
                           20                          25                          30  
 Gly Val Val Ser Ser Glu Phe Arg Asn Phe Ser Thr Ile Val Pro Ala  
                           35                          40                          45  
 Asp Pro Ala Ile Asp Gly Ser Gln Val Gln Asn Thr Gln Arg Ala Gly  
                           50                          55                          60  
 Gln Val Trp Tyr Pro Asp Ser Ala Phe Lys Thr Ala Glu Ala Ile Asn  
 65                          70                          75                          80  
 Asp Leu Asn Lys Glu Asn Leu Pro Leu Met Ile Ile Ala Ser Leu Arg  
                           85                          90                          95  
 Gly Phe Ser Gly Gly Gln Lys Asp Met Tyr Asp Met Val Leu Lys Phe  
                           100                          105                          110  
 Gly Ala Gln Ile Val Asp Ala Leu Ala Val Tyr Asn Arg Pro Val Ile  
                           115                          120                          125  
 Val Tyr Ile Pro Glu Ala Gly Glu Leu Arg Gly Gly Ala Trp Ala Val

130 135 140  
 Leu Asp Ser Lys Ile Arg Pro Glu Phe Ile His Leu Val Ala Asp Glu  
 145 150 155 160  
 Lys Ser Arg Gly Gly Ile Leu Glu Pro Asn Ala Val Val Gly Ile Lys  
 165 170 175  
 Phe Arg Lys Pro Met Met Met Glu Met Met Lys Arg Ser Asp Pro Thr  
 180 185 190  
 Tyr Ser Lys Leu Ser  
 195

<210> 238  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> VARIANT  
 <222> (1)...(124)  
 <223> Xaa = Any Amino Acid

<400> 238  
 Val Gly Tyr Pro Val Met Ile Lys Ala Ser Glu Gly Gly Gly Gly Lys  
 1 5 10 15  
 Gly Ile Arg Lys Val Asn Asn Ala Asp Asp Phe Pro Asn Leu Phe Arg  
 20 25 30  
 Gln Val Gln Ala Glu Val Pro Gly Ser Pro Ile Phe Val Met Arg Leu  
 35 40 45  
 Ala Lys Gln Ser Arg His Leu Glu Val Gln Ile Leu Ala Asp Gln Tyr  
 50 55 60  
 Gly Asn Ala Ile Ser Leu Phe Gly Arg Asp Cys Ser Val Gln Arg Arg  
 65 70 75 80  
 His Gln Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 85 90 95  
 Val Phe Glu His Met Glu Gln Cys Ala Val Lys Leu Ala Lys Met Val  
 100 105 110  
 Gly Tyr Val Ser Ala Gly Thr Val Glu Tyr Leu Tyr  
 115 120

<210> 239  
 <211> 68  
 <212> PRT  
 <213> Homo sapiens or Caenorhabditis elegans

<400> 239  
 Gly Pro Met Ile Lys Ala Ser Glu Gly Gly Gly Gly Lys Gly Ile Arg  
 1 5 10 15  
 Lys Asp Phe Phe Val Glu Val Gly Ser Pro Ile Phe Met Arg His Glu  
 20 25 30  
 Val Gln Leu Ala Asp Tyr Asn Ile Ser Arg Asp Cys Ser Gln Arg Arg  
 35 40 45  
 Gln Lys Met Ala Val Leu Ala Lys Val Gly Tyr Ser Ala Gly Thr Val  
 50 55 60  
 Glu Tyr Leu Tyr  
 65

<210> 240



<211> 124  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 240  
 Ile Gly Phe Pro Leu Met Ile Lys Ala Ser Glu Gly Gly Gly Gly Lys  
 1 5 10 15  
 Gly Ile Arg Lys Cys Thr Lys Val Glu Asp Phe Lys Ser Met Phe Glu  
 20 25 30  
 Glu Val Ala Gln Glu Val Gln Gly Ser Pro Ile Phe Leu Met Lys Cys  
 35 40 45  
 Val Asp Gly Ala Arg His Ile Glu Val Gln Leu Leu Ala Asp Arg Tyr  
 50 55 60  
 Glu Asn Val Ile Ser Val Tyr Thr Arg Asp Cys Ser Ile Gln Arg Arg  
 65 70 75 80  
 Cys Gln Lys Ile Ile Glu Glu Ala Pro Ala Ile Ile Ala Ser Ser His  
 85 90 95  
 Ile Arg Lys Ser Met Gln Glu Asp Ala Val Arg Leu Ala Lys Tyr Val  
 100 105 110  
 Gly Tyr Glu Ser Ala Gly Thr Val Glu Tyr Leu Tyr  
 115 120

<210> 241  
 <211> 116  
 <212> PRT  
 <213> Rat

<400> 241  
 Lys Glu Glu Gly Leu Gly Ala Glu Asn Leu Arg Gly Ser Gly Met Ile  
 1 5 10 15  
 Ala Gly Glu Ser Ser Leu Ala Tyr Asp Glu Ile Ile Thr Ile Ser Leu  
 20 25 30  
 Val Thr Cys Arg Ala Ile Gly Ile Gly Ala Tyr Leu Val Arg Leu Gly  
 35 40 45  
 Gln Arg Thr Ile Gln Val Glu Asn Ser His Leu Ile Leu Thr Gly Ala  
 50 55 60  
 Gly Ala Leu Asn Lys Val Leu Gly Arg Glu Val Tyr Thr Ser Asn Asn  
 65 70 75 80  
 Gln Leu Gly Gly Ile Gln Ile Met His Asn Asn Gly Val Thr His Cys  
 85 90 95  
 Thr Val Cys Asp Asp Phe Glu Gly Val Phe Thr Val Leu His Trp Leu  
 100 105 110  
 Ser Tyr Met Pro  
 115

<210> 242  
 <211> 65  
 <212> PRT  
 <213> Caenorhabditis elegans or Rat

<400> 242  
 Lys Glu Gly Glu Asn Leu Gly Ser Gly Ile Ala Gly Glu Ala Tyr Glu  
 1 5 10 15  
 Thr Val Thr Arg Gly Ile Gly Ala Tyr Arg Leu Arg Gln Ser His Leu  
 20 25 30  
 Ile Leu Thr Gly Ala Leu Asn Leu Gly Val Tyr Thr Ser Asn Asn Gln  
 35 40 45

Leu Gly Gly Met Asn Gly Val Thr His Val Asp Glu Gly Val Trp Ser  
 50 55 60  
 Pro  
 65

<210> 243  
 <211> 116  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 243  
 Lys Asn Glu Lys Ile Gly Val Glu Asn Leu Gln Gly Ser Gly Leu Ile  
 1 5 10 15  
 Ala Gly Glu Thr Ala Arg Ala Tyr Ala Glu Val Pro Thr Tyr Cys Tyr  
 20 25 30  
 Val Thr Gly Arg Ser Val Gly Ile Gly Ala Tyr Thr Ala Arg Leu Ala  
 35 40 45  
 His Arg Ile Val Gln His Lys Gln Ser His Leu Ile Leu Thr Gly Tyr  
 50 55 60  
 Glu Ala Leu Asn Thr Leu Leu Gly Lys Lys Val Tyr Thr Ser Asn Asn  
 65 70 75 80  
 Gln Leu Gly Gly Pro Glu Val Met Phe Arg Asn Gly Val Thr His Ala  
 85 90 95  
 Val Val Asp Asn Asp Leu Glu Gly Ile Ala Lys Val Ile Arg Trp Met  
 100 105 110  
 Ser Phe Leu Pro  
 115

<210> 244  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 244  
 His Val Ile Ala Ala Arg Ile Thr Ser Glu Asn Pro Asp Glu Gly Phe  
 1 5 10 15  
 Lys Pro Ser Ser Gly Thr Val Gln Glu Leu Asn Phe Arg Ser Asn Lys  
 20 25 30  
 Asn Val Trp Gly Tyr Phe Ser Val Ala Ala Ala Gly Gly Leu His Glu  
 35 40 45  
 Phe Ala Asp Ser Gln Phe Gly His Cys Phe Ser Trp Gly Glu Asn Arg  
 50 55 60  
 Glu Glu Ala Ile Ser Asn Met Val Val Ala Leu Lys Glu Leu Ser Ile  
 65 70 75 80  
 Arg Gly Asp Phe Arg Thr Thr Val Glu Tyr Leu Ile Lys Leu Leu Glu  
 85 90 95  
 Thr Glu Ser Phe Gln Leu Asn Arg Ile Asp Thr Gly Trp Leu Asp Arg  
 100 105 110  
 Leu Ile Ala Glu Lys Val Gln  
 115

<210> 245  
 <211> 59  
 <212> PRT  
 <213> Caenorhabditis elegans or Homo sapiens

<400> 245  
 His Ile Ala Ala Arg Ile Thr Glu Asn Pro Asp Phe Pro Ser Gly Val  
 1 5 10 15  
 Glu Asn Phe Ser Trp Tyr Phe Ser Val His Phe Ala Asp Ser Gln Phe  
 20 25 30  
 Gly His Phe Gly Arg Glu Ala Met Leu Lys Ile Arg Phe Thr Val Tyr  
 35 40 45  
 Leu Leu Phe Asn Thr Trp Leu Asp Ile Ala Lys  
 50 55

<210> 246  
 <211> 119  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 246  
 His Ala Ile Ala Ala Arg Ile Thr Cys Glu Asn Pro Asp Asp Ser Phe  
 1 5 10 15  
 Arg Pro Ser Thr Gly Lys Val Tyr Glu Ile Asn Phe Pro Ser Ser Gln  
 20 25 30  
 Asp Ala Trp Ala Tyr Phe Ser Val Gly Arg Gly Ser Ser Val His Gln  
 35 40 45  
 Phe Ala Asp Ser Gln Phe Gly His Ile Phe Thr Arg Gly Thr Ser Arg  
 50 55 60  
 Thr Glu Ala Met Asn Thr Met Cys Ser Thr Leu Lys His Met Thr Ile  
 65 70 75 80  
 Arg Ser Ser Phe Pro Thr Gln Val Asn Tyr Leu Val Asp Leu Met His  
 85 90 95  
 Asp Ala Asp Phe Ile Asn Asn Ala Phe Asn Thr Gln Trp Leu Asp Lys  
 100 105 110  
 Arg Ile Ala Met Lys Ile Lys  
 115

<210> 247  
 <211> 90  
 <212> PRT  
 <213> Rat

<400> 247  
 Pro Gly Gly Ala Asn Asn Asn Tyr Ala Asn Val Glu Leu Ile Leu  
 1 5 10 15  
 Asp Ile Ala Lys Arg Ile Pro Val Gln Ala Val Trp Ala Gly Trp Gly  
 20 25 30  
 His Ala Ser Glu Asn Pro Lys Leu Pro Glu Leu Leu Leu Lys Asn Gly  
 35 40 45  
 Ile Ala Phe Met Gly Pro Pro Ser Gln Ala Met Trp Ala Leu Gly Asp  
 50 55 60  
 Lys Ile Ala Ser Ser Ile Val Ala Gln Thr Ala Gly Ile Pro Thr Leu  
 65 70 75 80  
 Pro Trp Ser Gly Ser Gly Leu Arg Val Asp  
 85 90

<210> 248  
 <211> 55  
 <212> PRT  
 <213> Caenorhabditis elegans or Rat

<400> 248

Pro Gly Asn Asn Asn Ala Asn Val Ile Leu Ala Val Ala Val Trp Ala  
1 5 10 15  
Gly Trp Gly His Ala Ser Glu Asn Pro Leu Pro Leu Ile Ala Phe Gly  
20 25 30  
Pro Pro Ala Met Leu Gly Asp Lys Ile Ala Ser Ile Ala Gln Thr Gly  
35 40 45  
Pro Thr Trp Ser Gly Ser Gly  
50 55

<210> 249

<211> 90

<212> PRT

<213> Caenorhabditis elegans

<400> 249

Pro Ser Gly Thr Asn Lys Asn Asn Phe Ala Asn Val Asp Glu Ile Leu  
1 5 10 15  
Lys His Ala Ile Lys Tyr Glu Val Asp Ala Val Trp Ala Gly Trp Gly  
20 25 30  
His Ala Ser Glu Asn Pro Asp Leu Pro Arg Arg Leu Asn Asp His Asn  
35 40 45  
Ile Ala Phe Ile Gly Pro Pro Ala Ser Ala Met Phe Ser Leu Gly Asp  
50 55 60  
Lys Ile Ala Ser Thr Ile Ile Ala Gln Thr Val Gly Val Pro Thr Val  
65 70 75 80  
Ala Trp Ser Gly Ser Gly Ile Thr Met Glu  
85 90

<210> 250

<211> 67

<212> PRT

<213> Caenorhabditis elegans

<400> 250

Val Ile Lys Asn Leu Gly Tyr Met Val Asp Asn His Gly Phe Val Pro  
1 5 10 15  
Asn Gly Gly Arg Val Tyr Tyr Leu Thr Arg Ser Gln Pro Pro Leu Leu  
20 25 30  
Thr Pro Met Val Tyr Glu Tyr Tyr Met Ser Thr Gly Asp Leu Asp Phe  
35 40 45  
Val Met Glu Ile Leu Pro Thr Leu Asp Lys Glu Tyr Glu Phe Trp Ile  
50 55 60  
Lys Asn Arg  
65

<210> 251

<211> 36

<212> PRT

<213> Caenorhabditis elegans

<400> 251

Ile Asn Gly Phe Val Pro Asn Gly Gly Arg Val Tyr Tyr Leu Arg Ser  
1 5 10 15  
Gln Pro Pro Pro Met Val Tyr Glu Tyr Tyr Thr Asp Val Pro Lys Glu  
20 25 30

Tyr Phe Trp Arg  
35

<210> 252  
<211> 67  
<212> PRT  
<213> Caenorhabditis elegans

<400> 252  
Met Ile Leu Asn Phe Ala His Ile Ile Glu Thr Tyr Gly Phe Val Pro  
1 5 10 15  
Asn Gly Gly Arg Val Tyr Tyr Leu Arg Arg Ser Gln Pro Pro Phe Phe  
20 25 30  
Ala Pro Met Val Tyr Glu Tyr Tyr Leu Ala Thr Gln Asp Ile Gln Leu  
35 40 45  
Val Ala Asp Leu Ile Pro Val Ile Glu Lys Glu Tyr Thr Phe Trp Ser  
50 55 60  
Glu Arg Arg  
65

<210> 253  
<211> 92  
<212> PRT  
<213> Caenorhabditis elegans

<400> 253  
Met Asp Ser Ile Arg Thr Trp Ser Ile Ile Pro Ala Asp Leu Asn Ala  
1 5 10 15  
Phe Met Cys Ala Asn Ala Arg Ile Leu Ala Ser Leu Tyr Glu Ile Ala  
20 25 30  
Gly Asp Phe Lys Lys Val Lys Val Phe Glu Gln Arg Tyr Thr Trp Ala  
35 40 45  
Lys Arg Glu Met Arg Glu Leu His Trp Asn Glu Thr Asp Gly Ile Trp  
50 55 60  
Tyr Asp Tyr Asp Ile Glu Leu Lys Thr His Ser Asn Gln Tyr Tyr Val  
65 70 75 80  
Ser Asn Ala Val Pro Leu Tyr Ala Lys Cys Tyr Asp  
85 90

<210> 254  
<211> 32  
<212> PRT  
<213> Caenorhabditis elegans

<400> 254  
Ile Thr Ile Pro Asp Leu Asn Ala Phe Cys Asn Ile Tyr Gly Lys Arg  
1 5 10 15  
Thr Trp Tyr Asp Tyr Thr His Ser Asn Ala Val Pro Leu Cys Tyr Asp  
20 25 30

<210> 255  
<211> 92  
<212> PRT  
<213> Caenorhabditis elegans

<400> 255

Ile	Ser	Thr	Ile	Glu	Thr	Thr	Asn	Ile	Val	Pro	Val	Asp	Leu	Asn	Ala
1				5					10					15	
Phe	Leu	Cys	Tyr	Asn	Met	Asn	Ile	Met	Gln	Leu	Phe	Tyr	Lys	Leu	Thr
			20					25					30		
Gly	Asn	Pro	Leu	Lys	His	Leu	Glu	Trp	Ser	Ser	Arg	Phe	Thr	Asn	Phe
		35					40					45			
Arg	Glu	Ala	Phe	Thr	Lys	Val	Phe	Tyr	Val	Pro	Ala	Arg	Lys	Gly	Trp
	50					55					60				
Tyr	Asp	Tyr	Asn	Leu	Arg	Thr	Leu	Thr	His	Asn	Thr	Asp	Phe	Phe	Ala
65					70					75					80
Ser	Asn	Ala	Val	Pro	Leu	Phe	Ser	Gln	Cys	Tyr	Asp				
				85					90						

<210> 256

<211> 102

<212> PRT

<213> Caenorhabditis elegans

<400> 256

Val	His	Asp	Tyr	Leu	Glu	Arg	Gln	Gly	Leu	Leu	Lys	Tyr	Thr	Lys	Gly
1				5					10					15	
Leu	Pro	Thr	Ser	Leu	Ala	Met	Ser	Ser	Thr	Gln	Gln	Trp	Asp	Lys	Glu
			20					25					30		
Asn	Ala	Trp	Pro	Pro	Met	Ile	His	Met	Val	Ile	Glu	Gly	Phe	Arg	Thr
		35					40					45			
Thr	Gly	Asp	Ile	Lys	Leu	Met	Lys	Val	Ala	Glu	Lys	Met	Ala	Thr	Ser
	50					55					60				
Trp	Leu	Thr	Gly	Thr	Tyr	Gln	Ser	Phe	Ile	Arg	Thr	His	Ala	Met	Phe
65					70					75					80
Glu	Lys	Tyr	Asn	Val	Thr	Pro	His	Thr	Glu	Glu	Thr	Ser	Gly	Gly	Gly
				85					90					95	
Gly	Gly	Glu	Tyr	Glu	Val										
			100												

<210> 257

<211> 37

<212> PRT

<213> Caenorhabditis elegans

<400> 257

Val	Gly	Gly	Pro	Thr	Ser	Gln	Gln	Trp	Asp	Asn	Trp	Pro	Met	His	Met
1				5					10					15	
Ile	Glu	Gly	Arg	Leu	Ala	Ala	Trp	Leu	Gln	Phe	Met	Glu	Lys	Tyr	Asn
			20					25					30		
Val	Gly	Gly	Glu	Val											
			35												

<210> 258

<211> 102

<212> PRT

<213> Caenorhabditis elegans

<400> 258

Val	Tyr	Asn	Glu	Met	Gln	Asn	Ser	Gly	Ala	Phe	Ser	Ile	Pro	Gly	Gly
1				5					10					15	

Ile	Pro	Thr	Ser	Met	Asn	Glu	Glu	Thr	Asn	Gln	Gln	Trp	Asp	Phe	Pro
			20					25					30		
Asn	Gly	Trp	Ser	Pro	Met	Asn	His	Met	Ile	Ile	Glu	Gly	Leu	Arg	Lys
		35					40					45			
Ser	Asn	Asn	Pro	Ile	Leu	Gln	Gln	Lys	Ala	Phe	Thr	Leu	Ala	Glu	Lys
	50					55					60				
Trp	Leu	Glu	Thr	Asn	Met	Gln	Thr	Phe	Asn	Val	Ser	Asp	Glu	Met	Trp
65					70					75					80
Glu	Lys	Tyr	Asn	Val	Lys	Glu	Pro	Leu	Gly	Lys	Leu	Ala	Thr	Gly	Gly
			85						90					95	
Glu	Tyr	Glu	Val	Gln	Val										
			100												

<210> 259  
 <211> 58  
 <212> PRT  
 <213> Caenorhabditis elegans

Tyr	Gln	Tyr	Lys	Ala	Lys	Leu	Lys	Val	Pro	Arg	Pro	Glu	Ser	Tyr	Arg
1			5						10					15	
Glu	Asp	Ser	Glu	Leu	Ala	Glu	His	Leu	Gln	Thr	Glu	Ala	Glu	Lys	Ile
		20						25					30		
Gln	Met	Trp	Ser	Glu	Ile	Ala	Ser	Ala	Ala	Glu	Thr	Gly	Trp	Asp	Phe
		35					40					45			
Ser	Thr	Arg	Trp	Phe	Ser	Gln	Asn	Gly	Asp						
	50					55									

<210> 260  
 <211> 29  
 <212> PRT  
 <213> Caenorhabditis elegans

Gln	Tyr	Pro	Arg	Pro	Glu	Ser	Arg	Glu	Asp	Ala	Glu	His	Thr	Lys	Gln
1			5					10						15	
Ser	Ala	Ala	Glu	Gly	Trp	Asp	Phe	Ser	Arg	Trp	Phe	Asp			
		20						25							

<210> 261  
 <211> 58  
 <212> PRT  
 <213> Caenorhabditis elegans

Phe	Gln	Tyr	Arg	Thr	Glu	Ala	Glu	Thr	Pro	Arg	Pro	Glu	Ser	Phe	Arg
1			5						10					15	
Glu	Asp	Val	Leu	Ser	Ala	Glu	His	Phe	Thr	Thr	Lys	Asp	Arg	Lys	Lys
		20						25				30			
Gln	Phe	Phe	Lys	Asp	Leu	Gly	Ser	Ala	Ala	Glu	Ser	Gly	Trp	Asp	Phe
		35					40					45			
Ser	Ser	Arg	Trp	Phe	Lys	Asn	His	Lys	Asp						
	50					55									

<210> 262

<211> 21  
<212> PRT  
<213> Caenorhabditis elegans

<400> 262  
Gln Thr Gly Phe Gly Trp Thr Asn Gly Val Ile Leu Asp Leu Leu Asp  
1 5 10 15  
Lys Tyr Gly Asp Gln  
20

<210> 263  
<211> 13  
<212> PRT  
<213> Caenorhabditis elegans

<400> 263  
Gln Gly Phe Gly Trp Thr Asn Gly Leu Asp Leu Tyr Asp  
1 5 10

<210> 264  
<211> 21  
<212> PRT  
<213> Caenorhabditis elegans

<400> 264  
Gln Ala Gly Phe Gly Trp Thr Asn Gly Ala Ala Leu Asp Leu Ile Phe  
1 5 10 15  
Thr Tyr Ser Asp Arg  
20

<210> 265  
<211> 24  
<212> PRT  
<213> Caenorhabditis elegans

<400> 265  
Ser Ser Ser Thr Ala Ser Lys Phe Ser Phe Ser Leu Ser Asn Ile Thr  
1 5 10 15  
Phe Val Val Phe Ile Leu Tyr Ile  
20

<210> 266  
<211> 10  
<212> PRT  
<213> Caenorhabditis elegans

<400> 266  
Ser Ser Ser Phe Ser Val Phe Leu Tyr Ile  
1 5 10

<210> 267  
<211> 24  
<212> PRT  
<213> Caenorhabditis elegans



<400> 267  
 Thr Ser Ser Ser Ser Ser Thr Phe Gly Tyr Ser Asn Ile Leu Thr Leu  
   1                  5          10                  15  
 Ile Thr Val Phe Val Leu Tyr Ile  
                   20

<210> 268  
 <211> 7  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 268  
 Gly Gly Glu Tyr Glu Val Gln  
   1                  5

<210> 269  
 <211> 7  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 269  
 Gly Gly Glu Tyr Glu Val Gln  
   1                  5

<210> 270  
 <211> 7  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 270  
 Gly Gly Glu Tyr Glu Val Gln  
   1                  5

<210> 271  
 <211> 18  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 271  
 Lys Thr His Ser Asn Gln Tyr Tyr Val Ser Asn Ala Val Pro Leu Tyr  
   1                  5          10                  15  
 Ala Lys

<210> 272  
 <211> 8  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 272  
 Lys Tyr Tyr Val Ser Pro Tyr Lys  
   1                  5

<210> 273  
 <211> 18  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 273  
 Lys Phe Thr Ala His Pro Tyr Tyr Val Ser Arg Thr Pro Pro Arg Tyr  
 1 5 10 15  
 His Lys

<210> 274  
 <211> 67  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 274  
 Val Ile Lys Asn Leu Gly Tyr Met Val Asp Asn His Gly Phe Val Pro  
 1 5 10 15  
 Asn Gly Gly Arg Val Tyr Tyr Leu Thr Arg Ser Gln Pro Pro Leu Leu  
 20 25 30  
 Thr Pro Met Val Tyr Glu Tyr Tyr Met Ser Thr Gly Asp Leu Asp Phe  
 35 40 45  
 Val Met Glu Ile Leu Pro Thr Leu Asp Lys Glu Tyr Glu Phe Trp Ile  
 50 55 60  
 Lys Asn Arg  
 65

<210> 275  
 <211> 43  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 275  
 Ile Asn Leu Met Val Asp Gly Phe Val Pro Asn Gly Gly Arg Val Tyr  
 1 5 10 15  
 Tyr Leu Arg Ser Gln Pro Pro Leu Met Val Tyr Glu Tyr Thr Asp Phe  
 20 25 30  
 Val Glu Leu Pro Thr Leu Lys Glu Phe Trp Arg  
 35 40

<210> 276  
 <211> 67  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 276  
 Met Ile Arg Asn Leu Ala Ser Met Val Asp Lys Tyr Gly Phe Val Pro  
 1 5 10 15  
 Asn Gly Gly Arg Val Tyr Tyr Leu Gln Arg Ser Gln Pro Pro Phe Leu  
 20 25 30  
 Ala Ala Met Val Tyr Glu Leu Tyr Glu Ala Thr Asn Asp Lys Ala Phe  
 35 40 45  
 Val Ala Glu Leu Leu Pro Thr Leu Leu Lys Glu Leu Asn Phe Trp Asn  
 50 55 60  
 Glu Lys Arg

65

<210> 277  
<211> 84  
<212> PRT  
<213> Caenorhabditis elegans

<400> 277  
Ile Ile Pro Ala Asp Leu Asn Ala Phe Met Cys Ala Asn Ala Arg Ile  
1 5 10 15  
Leu Ala Ser Leu Tyr Glu Ile Ala Gly Asp Phe Lys Lys Val Lys Val  
20 25 30  
Phe Glu Gln Arg Tyr Thr Trp Ala Lys Arg Glu Met Arg Glu Leu His  
35 40 45  
Trp Asn Glu Thr Asp Gly Ile Trp Tyr Asp Tyr Asp Ile Glu Leu Lys  
50 55 60  
Thr His Ser Asn Gln Tyr Tyr Val Ser Asn Ala Val Pro Leu Tyr Ala  
65 70 75 80  
Lys Cys Tyr Asp

<210> 278  
<211> 31  
<212> PRT  
<213> Caenorhabditis elegans

<400> 278  
Pro Asp Leu Asn Cys Asn Ile Leu Tyr Glu Gly Asp Lys Phe Asn Thr  
1 5 10 15  
Asp Gly Trp Tyr Asp Tyr His Tyr Ser Ala Val Pro Leu Cys Tyr  
20 25 30

<210> 279  
<211> 84  
<212> PRT  
<213> Caenorhabditis elegans

<400> 279  
Val Leu Pro Val Asp Leu Asn Gly Leu Leu Cys Trp Asn Met Asp Ile  
1 5 10 15  
Met Glu Tyr Leu Tyr Glu Gln Ile Gly Asp Thr Lys Asn Ser Gln Ile  
20 25 30  
Phe Arg Asn Lys Arg Ala Asp Phe Arg Asp Thr Val Gln Asn Val Phe  
35 40 45  
Tyr Asn Arg Thr Asp Gly Thr Trp Tyr Asp Tyr Asn Leu Arg Thr Gln  
50 55 60  
Ser His Asn Pro Arg Phe Tyr Thr Ser Thr Ala Val Pro Leu Phe Thr  
65 70 75 80  
Asn Cys Tyr Asn

<210> 280  
<211> 48  
<212> PRT  
<213> Caenorhabditis elegans

<400> 280

Tyr	Leu	Glu	Arg	Gln	Gly	Leu	Leu	Lys	Tyr	Thr	Lys	Gly	Leu	Pro	Thr
1				5					10					15	
Ser	Leu	Ala	Met	Ser	Ser	Thr	Gln	Gln	Trp	Asp	Lys	Glu	Asn	Ala	Trp
			20					25					30		
Pro	Pro	Met	Ile	His	Met	Val	Ile	Glu	Gly	Phe	Arg	Thr	Thr	Gly	Asp
		35					40					45			

<210> 281

<211> 20

<212> PRT

<213> *Caenorhabditis elegans*

<400> 281

Gly	Tyr	Gly	Pro	Thr	Ser	Ser	Gln	Gln	Trp	Asp	Asn	Trp	Pro	His	Met
1				5					10					15	
Ile	Glu	Gly	Arg												
			20												

<210> 282

<211> 48

<212> PRT

<213> *Caenorhabditis elegans*

<400> 282

Phe	Phe	Gln	Lys	Met	Gly	Val	Phe	Thr	Tyr	Pro	Gly	Gly	Ile	Pro	Thr
1				5					10					15	
Ser	Met	Ser	Gln	Glu	Ser	Asp	Gln	Gln	Trp	Asp	Phe	Pro	Asn	Gly	Trp
			20					25					30		
Ser	Pro	Asn	Asn	His	Met	Ile	Ile	Glu	Gly	Leu	Arg	Lys	Ser	Ala	Asn
		35					40					45			

<210> 283

<211> 18

<212> PRT

<213> *Caenorhabditis elegans*

<400> 283

Glu	Ile	Ala	Ser	Ala	Ala	Glu	Thr	Gly	Trp	Asp	Phe	Ser	Thr	Arg	Trp
1				5					10					15	
Phe	Ser														

<210> 284

<211> 15

<212> PRT

<213> *Caenorhabditis elegans*

<400> 284

Ala	Ser	Ala	Ala	Glu	Gly	Trp	Asp	Phe	Ser	Thr	Arg	Trp	Phe	Ser	
1				5					10					15	

<210> 285

<211> 18

<212> PRT  
<213> Caenorhabditis elegans

<400> 285  
Asp Leu Ala Ser Ala Ala Glu Ser Gly Trp Asp Phe Ser Thr Arg Trp  
1 5 10 15  
Phe Ser

<210> 286  
<211> 40  
<212> PRT  
<213> Caenorhabditis elegans

<400> 286  
Lys Gln Phe Pro Tyr Tyr Gln Tyr Lys Ala Lys Leu Lys Val Pro Arg  
1 5 10 15  
Pro Glu Ser Tyr Arg Glu Asp Ser Glu Leu Ala Glu His Leu Gln Thr  
20 25 30  
Glu Ala Glu Lys Ile Gln Met Trp  
35 40

<210> 287  
<211> 18  
<212> PRT  
<213> Caenorhabditis elegans

<400> 287  
Lys Phe Tyr Gln Tyr Lys Val Pro Arg Pro Glu Ser Tyr Arg Asp Leu  
1 5 10 15  
Ala Gln

<210> 288  
<211> 40  
<212> PRT  
<213> Caenorhabditis elegans

<400> 288  
Lys Ser Phe Lys Val Tyr Gln Tyr Lys Thr Ala Ser Asn Val Pro Arg  
1 5 10 15  
Pro Glu Ser Tyr Arg Val Asp Thr Gln Asn Ser Ala Lys Leu Ala Asn  
20 25 30  
Gly Ala Asp Gln Gln Gln Phe Tyr  
35 40

<210> 289  
<211> 21  
<212> PRT  
<213> Caenorhabditis elegans

<400> 289  
Gln Thr Gly Phe Gly Trp Thr Asn Gly Val Ile Leu Asp Leu Leu Asp  
1 5 10 15  
Lys Tyr Gly Asp Gln

<210> 290  
 <211> 14  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 290  
 Gln Gly Phe Gly Trp Asn Gly Ile Leu Asp Leu Leu Tyr Asp  
 1 5 10

<210> 291  
 <211> 21  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 291  
 Gln Asp Gly Phe Gly Trp Ser Asn Gly Ala Ile Leu Asp Leu Leu Leu  
 1 5 10 15  
 Thr Tyr Asn Asp Arg  
 20

<210> 292  
 <211> 27  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 292  
 Tyr Gly Asp Gln Phe Ala Ser Ser Ser Thr Ala Ser Lys Phe Ser Phe  
 1 5 10 15  
 Ser Leu Ser Asn Ile Thr Phe Val Val Phe Ile  
 20 25

<210> 293  
 <211> 11  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 293  
 Tyr Phe Ala Ser Ser Ser Ala Ser Phe Ser Phe  
 1 5 10

<210> 294  
 <211> 26  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 294  
 Tyr Asn Pro Phe Ala Ser Ser Ser Asp Ala Ser Ser Cys Pro Phe Ser  
 1 5 10 15  
 Thr Asn Ser Val Ile Phe Ser Ile Leu Val  
 20 25

<210> 295  
<211> 9  
<212> PRT  
<213> Caenorhabditis elegans

<400> 295  
Gly Gly Gly Gly Glu Tyr Glu Val Gln  
1 5

<210> 296  
<211> 7  
<212> PRT  
<213> Caenorhabditis elegans

<400> 296  
Gly Gly Gly Glu Tyr Val Gln  
1 5

<210> 297  
<211> 9  
<212> PRT  
<213> Caenorhabditis elegans

<400> 297  
Gly Ser Gly Gly Glu Tyr Asp Val Gln  
1 5

<210> 298  
<211> 14  
<212> PRT  
<213> Caenorhabditis elegans

<400> 298  
Asn Gln Tyr Tyr Val Ser Asn Ala Val Pro Leu Tyr Ala Lys  
1 5 10

<210> 299  
<211> 7  
<212> PRT  
<213> Caenorhabditis elegans

<400> 299  
Asn Tyr Tyr Val Leu Tyr Lys  
1 5

<210> 300  
<211> 14  
<212> PRT  
<213> Caenorhabditis elegans

<400> 300  
Asn His Tyr Tyr Ile Ile Gln Met Val Ser Leu Tyr Thr Lys  
1 5 10

<210> 301  
<211> 30  
<212> PRT  
<213> Caenorhabditis elegans

<400> 301  
Asp Gln Phe Ala Ser Ser Ser Thr Ala Ser Lys Phe Ser Phe Ser Leu  
1 5 10 15  
Ser Asn Ile Thr Phe Val Val Phe Ile Leu Tyr Ile Phe Ser  
20 25 30

<210> 302  
<211> 11  
<212> PRT  
<213> Caenorhabditis elegans

<400> 302  
Asp Gln Phe Ser Ser Lys Phe Ser Phe Phe Ser  
1 5 10

<210> 303  
<211> 30  
<212> PRT  
<213> Caenorhabditis elegans

<400> 303  
Asp Gln Phe Val Ile Ser Phe Ile Cys Ser Lys Phe Ser Ser Lys Asn  
1 5 10 15  
Lys Lys Leu Tyr Phe Cys Pro Ser His Phe Ser Leu Phe Ser  
20 25 30

<210> 304  
<211> 9  
<212> PRT  
<213> Caenorhabditis elegans

<220>  
<221> VARIANT  
<222> (1)...(9)  
<223> Xaa = Any Amino Acid

<400> 304  
Gly Trp Asp Xaa Xaa Ile Ala Pro Lys  
1 5

<210> 305  
<211> 62  
<212> PRT  
<213> Mus musculus

<400> 305  
Leu Cys Lys Glu Gly Ile Ser Asp Gly Ala Thr Met Lys Thr Phe Cys  
1 5 10 15  
Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu Glu Asp Asn Asp Tyr  
20 25 30



Gly Arg Ala Val Asp Trp Trp Gly Leu Gly Val Val Met Tyr Glu Met  
           35                  40                  45  
 Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His Glu Arg  
       50                      55                  60

<210> 306  
 <211> 9  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 306  
 Gln Ala Leu Thr Gln Met Asn Pro Lys  
   1                      5

<210> 307  
 <211> 11  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 307  
 Gln Ala Leu Thr Gln Cys Val Asp Ser Met Arg  
   1                      5                  10

<210> 308  
 <211> 248  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 308  
 Ile Phe Arg Thr Ala Val Ser Ser Asn Arg Cys Arg Thr Glu Tyr Gln  
   1                      5                  10                  15  
 Asn Ile Asp Leu Asp Cys Ala Tyr Ile Thr Asp Arg Ile Ile Ala Ile  
           20                  25                  30  
 Gly Tyr Pro Ala Thr Gly Ile Glu Ala Asn Phe Arg Asn Ser Lys Val  
           35                  40                  45  
 Gln Thr Gln Gln Phe Leu Thr Arg Arg His Gly Lys Gly Asn Val Lys  
       50                  55                  60  
 Val Phe Asn Leu Arg Gly Gly Tyr Tyr Tyr Asp Ala Asp Asn Phe Asp  
   65                  70                  75                  80  
 Gly Asn Val Ile Cys Phe Asp Met Thr Asp His His Pro Pro Ser Leu  
           85                  90                  95  
 Glu Leu Met Ala Pro Phe Cys Arg Glu Ala Lys Glu Trp Leu Glu Ala  
           100                  105                  110  
 Asp Asp Lys His Val Ile Ala Val His Cys Lys Ala Gly Lys Gly Arg  
           115                  120                  125  
 Thr Gly Val Met Ile Cys Ala Leu Leu Ile Tyr Ile Asn Phe Tyr Pro  
       130                  135                  140  
 Ser Pro Arg Gln Ile Leu Asp Tyr Tyr Ser Ile Ile Thr Arg Lys Asn  
   145                  150                  155                  160  
 Asn Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr Ile Tyr Tyr Tyr  
           165                  170                  175  
 His Lys Leu Arg Glu Arg Glu Leu Asn Tyr Leu Pro Leu Arg Met Gln  
           180                  185                  190  
 Leu Ile Gly Val Tyr Val Glu Arg Pro Pro Lys Thr Trp Gly Gly Gly  
       195                  200                  205  
 Ser Lys Ile Lys Val Glu Val Gly Asn Gly Ser Thr Ile Leu Phe Lys

210                      215                      220  
 Pro Asp Pro Leu Ile Ile Ser Lys Ser Asn His Gln Arg Glu Arg Ala  
 225                      230                      235                      240  
 Thr Trp Leu Asn Asn Cys Asp Thr  
                     245

<210> 309  
 <211> 249  
 <212> PRT  
 <213> Homo sapiens

<400> 309  
 Ile Ile Lys Glu Ile Val Ser Arg Asn Lys Arg Arg Tyr Gln Glu Asp  
 1                      5                      10                      15  
 Gly Phe Asp Leu Asp Leu Thr Tyr Ile Tyr Pro Asn Ile Ile Ala Met  
                     20                      25                      30  
 Gly Phe Pro Ala Glu Arg Leu Glu Gly Val Tyr Arg Asn Asn Ile Asp  
                     35                      40                      45  
 Asp Val Val Arg Phe Leu Asp Ser Lys His Lys Asn His Tyr Lys Ile  
                     50                      55                      60  
 Tyr Asn Leu Cys Ala Glu Arg His Tyr Asp Thr Ala Lys Phe Asn Cys  
 65                      70                      75                      80  
 Arg Val Ala Gln Tyr Pro Phe Glu Asp His Asn Pro Pro Gln Leu Glu  
                     85                      90                      95  
 Leu Ile Lys Pro Phe Cys Glu Asp Leu Asp Gln Trp Leu Ser Glu Asp  
                     100                      105                      110  
 Asp Asn His Val Ala Ala Ile His Cys Lys Ala Gly Lys Gly Arg Thr  
                     115                      120                      125  
 Gly Val Met Ile Cys Ala Tyr Leu Leu His Arg Gly Lys Phe Leu Lys  
                     130                      135                      140  
 Ala Gln Glu Ala Leu Asp Phe Tyr Gly Glu Val Arg Thr Arg Asp Lys  
 145                      150                      155                      160  
 Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr Val Tyr Tyr Tyr Ser  
                     165                      170                      175  
 Tyr Leu Leu Lys Asn His Leu Asp Tyr Arg Pro Val Ala Leu Leu Phe  
                     180                      185                      190  
 His Lys Met Met Phe Glu Thr Ile Pro Met Phe Ser Gly Gly Thr Cys  
                     195                      200                      205  
 Asn Pro Gln Phe Val Val Cys Gln Leu Lys Val Lys Ile Tyr Ser Ser  
                     210                      215                      220  
 Asn Ser Gly Pro Thr Arg Arg Glu Asp Lys Phe Asn Tyr Phe Glu Phe  
 225                      230                      235                      240  
 Pro Gln Pro Leu Pro Val Cys Gly Asp  
                     245

<210> 310  
 <211> 962  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 310  
 Met Val Thr Pro Pro Pro Asp Val Pro Ser Thr Ser Thr Arg Ser Met  
 1                      5                      10                      15  
 Ala Arg Asp Leu Gln Glu Asn Pro Asn Arg Gln Pro Gly Glu Pro Arg  
                     20                      25                      30  
 Val Ser Glu Pro Tyr His Asn Ser Ile Val Glu Arg Ile Arg His Ile  
                     35                      40                      45

Phe	Arg	Thr	Ala	Val	Ser	Ser	Asn	Arg	Cys	Arg	Thr	Glu	Tyr	Gln	Asn		
50					55					60							
Ile	Asp	Leu	Asp	Cys	Ala	Tyr	Ile	Thr	Asp	Arg	Ile	Ile	Ala	Ile	Gly		
65				70					75						80		
Tyr	Pro	Ala	Thr	Gly	Ile	Glu	Ala	Asn	Phe	Arg	Asn	Ser	Lys	Val	Gln		
				85					90					95			
Thr	Gln	Gln	Phe	Leu	Thr	Arg	Arg	His	Gly	Lys	Gly	Asn	Val	Lys	Val		
			100					105					110				
Phe	Asn	Leu	Arg	Gly	Gly	Tyr	Tyr	Tyr	Asp	Ala	Asp	Asn	Phe	Asp	Gly		
		115				120						125					
Asn	Val	Ile	Cys	Phe	Asp	Met	Thr	Asp	His	His	Pro	Pro	Ser	Leu	Glu		
130						135					140						
Leu	Met	Ala	Pro	Phe	Cys	Arg	Glu	Ala	Lys	Glu	Trp	Leu	Glu	Ala	Asp		
145					150					155					160		
Asp	Lys	His	Val	Ile	Ala	Val	His	Cys	Lys	Ala	Gly	Lys	Gly	Arg	Thr		
				165					170					175			
Gly	Val	Met	Ile	Cys	Ala	Leu	Leu	Ile	Tyr	Ile	Asn	Phe	Tyr	Pro	Ser		
			180					185					190				
Pro	Arg	Gln	Ile	Leu	Asp	Tyr	Tyr	Ser	Ile	Ile	Arg	Thr	Lys	Asn	Asn		
		195				200						205					
Lys	Gly	Val	Thr	Ile	Pro	Ser	Gln	Arg	Arg	Tyr	Ile	Tyr	Tyr	Tyr	His		
210					215						220						
Lys	Leu	Arg	Glu	Arg	Glu	Leu	Asn	Tyr	Leu	Pro	Leu	Arg	Met	Gln	Leu		
225					230					235					240		
Ile	Gly	Val	Tyr	Val	Glu	Arg	Pro	Pro	Lys	Thr	Trp	Gly	Gly	Gly	Ser		
				245					250					255			
Lys	Ile	Lys	Val	Glu	Val	Gly	Asn	Gly	Ser	Thr	Ile	Leu	Phe	Lys	Pro		
			260					265					270				
Asp	Pro	Leu	Ile	Ile	Ser	Lys	Ser	Asn	His	Gln	Arg	Glu	Arg	Ala	Thr		
		275				280						285					
Trp	Leu	Asn	Asn	Cys	Asp	Thr	Pro	Asn	Glu	Phe	Asp	Thr	Gly	Glu	Gln		
290					295						300						
Lys	Tyr	His	Gly	Phe	Val	Ser	Lys	Arg	Ala	Tyr	Cys	Phe	Met	Val	Pro		
305					310					315					320		
Glu	Asp	Ala	Pro	Val	Phe	Val	Glu	Gly	Asp	Val	Arg	Ile	Asp	Ile	Arg		
				325					330					335			
Glu	Ile	Gly	Phe	Leu	Lys	Lys	Phe	Ser	Asp	Gly	Lys	Ile	Gly	His	Val		
			340					345					350				
Trp	Phe	Asn	Thr	Met	Phe	Ala	Cys	Asp	Gly	Gly	Leu	Asn	Gly	Gly	His		
		355				360						365					
Phe	Glu	Tyr	Val	Asp	Lys	Thr	Gln	Pro	Tyr	Ile	Gly	Asp	Asp	Thr	Ser		
370					375						380						
Ile	Gly	Arg	Lys	Asn	Gly	Met	Arg	Arg	Asn	Glu	Thr	Pro	Met	Arg	Lys		
385					390					395					400		
Ile	Asp	Pro	Glu	Thr	Gly	Asn	Glu	Phe	Glu	Ser	Pro	Trp	Gln	Ile	Val		
				405					410					415			
Asn	Pro	Pro	Gly	Leu	Glu	Lys	His	Ile	Thr	Glu	Glu	Gln	Ala	Met	Glu		
			420					425					430				
Asn	Tyr	Thr	Asn	Tyr	Gly	Met	Ile	Pro	Pro	Arg	Tyr	Thr	Ile	Ser	Lys		
		435				440						445					
Ile	Leu	His	Glu	Lys	His	Glu	Lys	Gly	Ile	Val	Lys	Asp	Asp	Tyr	Asn		
		450				455					460						
Asp	Arg	Lys	Leu	Pro	Met	Gly	Asp	Lys	Ser	Tyr	Thr	Glu	Ser	Gly	Lys		
465					470					475					480		
Ser	Gly	Asp	Ile	Arg	Gly	Val	Gly	Gly	Pro	Phe	Glu	Ile	Pro	Tyr	Lys		
				485					490					495			
Ala	Glu	Glu	His	Val	Leu	Thr	Phe	Pro	Val	Tyr	Glu	Met	Asp	Arg	Ala		
			500					505					510				
Leu	Lys	Ser	Lys	Asp	Leu	Asn	Asn	Gly	Met	Lys	Leu	His	Val	Val	Leu		



<210> 311  
 <211> 3304  
 <212> DNA  
 <213> *Caenorhabditis elegans*

<400> 311  
 ttccagggtac atctactaac ccccaatggt tactcctcct ccagatgtgc caagcacatc 60  
 gaccagggtcg atggctcgtg accttcaaga gaatccaaac cgacaacctg gtgaaccacg 120  
 tgtgtctgaa ccgtatcaca attcaatcgt cgagcggatt cgccatattt ttcggacggc 180  
 tgtatcttcc aatcgttggt gcaccgagta ccaaaatata gacctagatt gtgcatatat 240  
 cacagaccga atcatagcta tcggttatcc agcaacagga atcgaagcga atttccgtaa 300  
 ctcaaaagtt caaactcaac aatttctgac caggcggcac ggaaagggca acgtgaaggt 360  
 gtttaacctg cgcggtggat actactacga tgcggataac ttcgatggaa atgttatttg 420  
 cttcgatatg actgatcatc atccgccgag tctcgaatta atggctccgt tttgcagaga 480  
 ggctaaggaa tggcttgaag cagacgataa acatgtaata gctgtacact gtaaagctgg 540  
 aaaaggccgt accggagtga tgatatgtgc tcttctcatc tacatcaact tctatccgag 600  
 cccacgacaa attctcgact actactcaat aattcgtaca aaaaacaaca aaggtgtcac 660  
 aattccatca caacgacgct acatttacta ctaccataag cttcgtgaac gtgagctcaa 720  
 ctatttacca ttgagaatgc agttgattgg tgtctacgtg gaacggcctc caaagacatg 780  
 ggggtggtggt tcaaagataa aagtggaggt tggaaatggc tcgacaattt tatttaagcc 840  
 ggatcctctc ataatctcca aatcaaatca tcagcgagag cgtgcgacgt ggctgaacaa 900  
 ctgtgatacg cctaacgaat tcgacaccgg agagcaaaaa tatcatggat ttgtttccaa 960  
 gagagcatac tgttttatgg tgccagaaga tgctccagta tttgtcgaag gagatgttcg 1020  
 tatagacatt cgcgaaatcg gatttctcaa aaagttttcg gacgggaaga ttggtcatgt 1080  
 ttggttcaat acaatgttcg catgtgatgg aggactcaac ggtggacatt tcgagtacgt 1140  
 agacaaaact cagccgtaca tcggagacga tacatcaate ggacggaaaa atggaatgcg 1200  
 aagaaatgaa acgccgatgc gaaaaattga tccagaaact ggaaatgaat ttgagtctcc 1260  
 gtggcaataa gtgaatcctc ctggactgga aaaacatatt acggaggaac aagcaatgga 1320  
 aaattatacc aattatggca tgattcctcc tcgatacacg atcagcaaga ttcttcacga 1380  
 aaagcatgaa aaaggtatcg tcaaggatga ctataatgat cgtaagctgc caatgggaga 1440  
 caaatcatac acggaatcag gaaaaagtgg agatattcga ggagtcggtg gtccatttga 1500  
 gataccatat aaagctgagg aacatgttct cacattttcca gtttatgaaa tggatcgagc 1560  
 attgaagagt aaagatctta acaacggaat gaaacttcac gttgttcttc gttgtgtaga 1620  
 tactcgtgat tcaaaaatga tggaaaagag cgaagtgttc ggcaatctgg cattccataa 1680  
 tgaatcgaca cggaggcttc aagcgttgac tcaaatgaat ccaaaatggc gacctgaacc 1740  
 gtgtgcgttc ggatccaaag gtgctgaaat gcattaccct ccgtcggttc gatattcaag 1800  
 caatgatgga aagtataatg gagcctgcag tgagaacctt gttagcgatt ttttcgagca 1860  
 cagaaatatt gccgttctta atcgatattg ccgatatttc tacaagcaac gcagtacatc 1920  
 tcgaagccgt tatccaagaa aattcagata ctgtcctctg atcaagaaac atttctacat 1980  
 tccagctgat accgatgatg ttgatgaaaa tgggcaaccg ttcttccact caccagagca 2040  
 ttacattaaa gaacaggaaa aaatagacgc agagaaagca gctaaaggaa ttgaaaatatc 2100  
 tggaccagat acttcaggat caagtgtctc cggaactatc aagaaaacgg aagcttcaca 2160  
 atccgacaag gtgaagccgg caactgaaga cgaacttcct cctgcgaggc taccggataa 2220  
 tgtgcgaaga tttccagtcg tcggcggttg tttcgaaaat ccggaagaag aatcgtgtga 2280  
 acacaaaacc gtagagtcaa tagctggttt tgaaccactc gaacatctat tccatgaatc 2340  
 ataccatcca aatacggccg gtaacatgct gcgtcaggat tatcacactg attcgggaagt 2400  
 gaaaatagct gaacaagagg caaaagcctt cgttgaccag ttgcttaatg gacaaggtgt 2460  
 attacaagag tttatgaagc aattcaaagt accatcggac aattcctttg ctgattatgt 2520  
 aaccggacag gccgaagttt ttaaagcaca gattgcgtta ctggagcagt cggaggattt 2580  
 tcaacgagtt caagcgaatg cagaggaagt cgatcttgaa cacactcttg gtgaagcgtt 2640  
 tgagcgattc gggcacgttg tagaagaatc gaatggttct tctaaaaatc caaaagccct 2700  
 gaaaactcga gaacaaatgg tgaaagaaac tggcaaagac actcagaaga cccgcaatca 2760  
 tgtgcttcta catttggaag ctaatcatcg tgtgcaaate gagcgtcgtg aaacgtgcc 2820  
 ggagctacat ccagaggata aaatcccaag aattgctcat ttttccgaaa acagcttctc 2880  
 ggattcgaat tttgatcaag ctatttattt gtaaacctaa aacaaaactt ttagaagatt 2940  
 ttcttcttac tgaccttcca attttcagat aatttcaatg ttttaagttt tctcttcaaa 3000  
 gtatcatcca ctttctgtat agtgttttgt tttttaacaa actattgttc gattattttg 3060  
 tatattcata ttatagctct caacttcccg attttccacg tatatatgta tattttgccg 3120  
 ggtgaaaaat agcaattccc tatgaatgta tccccttcca tctgttttct tactcagaaa 3180

ttgtaattca cattgcggt catcactaat cctatgggct ttaacacaat tctcccataa	3240
attaattgta cttaccaatt ttttgtttta ttatttagat ttgtaacatt gaaattgggtg	3300
ataa	3304

<210> 312  
 <211> 1642  
 <212> DNA  
 <213> Caenorhabditis elegans

<400> 312	
tttaattacc caagtttgag gtagcattgc tctcttcaat catatggatt cgttgtttca	60
gatggcatcc gcaatgaagt ttcaatacta ctccaagaaa gctgctggaa agacaatgtc	120
taatagtgtc tccatgtcca gtgacaatcg catggaggat tttaaacgtc gttttcgtcg	180
aagtggatcg tttaggaattc cttttgtccc agaagaagat gttaaacaac tcttcacacc	240
aactcgtact gttcgtcgag aagcatctat tcgcgaaggg gatgaggaag aaggagtaca	300
aattctcaca ataattgtca agtcaagtcg tgtttcggag gatattctca aaatgattgc	360
aaacctccct gatcacactc gtatcaaaaca tttggagact cgtgacagtc aagatggaag	420
ttccaaaact atggatgttc ttctagagat tgagctcttt cattatggaa aacaagaagc	480
aatggatctt atgagactta atgggcttga tgttcatgag gtgtcatcga ctattcgtcc	540
aactgcaata aaagagcaat atacagagcc tggatctgat gatgcgacaa ccggttctga	600
atggtttcca aaaagtattt atgatttgga tatttgtgca aaaagagtga ttatgtatgg	660
agcagggtcg gacgtgatc atcctggttt caaagatacc gagtatcgtc aacgtcgaat	720
gatgtttgct gaactggcgc tcaattacaa acacgggtgag ccaattccgc gaaccgaata	780
tacatcatcc gaacggaaaa cttggggaat tatatataga aaattgagag aattgcacaa	840
aaagcacgca tgcaagcagt ttcttgataa ctttgagcta ctggagagac attgtggata	900
ctcgaaaaat aatattccgc aactagaaga tatctgcaag tttttgaaag caaaaactgg	960
attccgtgtt cgcccagtcg ccggatactt atcagctcgt gatttcttgg cagggtcttgc	1020
atctcgtgtc ttcttctgca ctcaatacgt tcgccatcat gccgatccat tttacactcc	1080
agaaccagac accgttcacg agctcatggg tcacatggct ctattcgtcg atccagattt	1140
tgctcagttt tctcaagaga ttggattagc ttctcttggg gcatcagagg aagatttgaa	1200
gaagcttgca acactctact tcttttccat tgaatttggg ctctcgtctg atgacgtgc	1260
cgattctcca gtaaaagaaa atggatcaaa tcatgaaaga tttaaagtat acggagcagg	1320
acttctgagc agtgctggcg agttgcaaca tgcggttgag ggtagtgcaa ccattattcg	1380
ttttgatccg gatcgtgttg ttgagcaaga atgtctcatt actactttcc agtcagcgta	1440
tttctatact agaaattttg aagaggccca gcagaaactc agaattgttca ccaacaacat	1500
gaaacgtccc ttcatgttc gttacaaccc atacacagaa agcgtcgaag ttctcaacaa	1560
ctcccgttcc attatgttgg cagtgaactc tctccgctca gacatcaacc tgctcgccgg	1620
agctctccac tacatcctgt ag	1642

<210> 313  
 <211> 532  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 313	
Met Asp Ser Leu Phe Gln Met Ala Ser Ala Met Lys Phe Gln Tyr Tyr	
1 5 10 15	
Ser Lys Lys Ala Gly Lys Thr Met Ser Asn Ser Val Ser Met Ser	
20 25 30	
Ser Asp Asn Arg Met Glu Asp Phe Lys Arg Arg Phe Arg Arg Ser Gly	
35 40 45	
Ser Leu Gly Ile Pro Phe Val Pro Glu Glu Asp Val Lys Gln Leu Phe	
50 55 60	
Thr Pro Thr Arg Thr Val Arg Arg Glu Ala Ser Ile Arg Glu Gly Asp	
65 70 75 80	
Glu Glu Glu Gly Val Gln Ile Leu Thr Ile Ile Val Lys Ser Ser Arg	
85 90 95	
Val Ser Glu Asp Ile Ser Lys Met Ile Ala Asn Leu Pro Asp His Thr	
100 105 110	

Arg	Ile	Lys	His	Leu	Glu	Thr	Arg	Asp	Ser	Gln	Asp	Gly	Ser	Ser	Lys
		115						120				125			
Thr	Met	Asp	Val	Leu	Leu	Glu	Ile	Glu	Leu	Phe	His	Tyr	Gly	Lys	Gln
		130				135					140				
Glu	Ala	Met	Asp	Leu	Met	Arg	Leu	Asn	Gly	Leu	Asp	Val	His	Glu	Val
145					150					155					160
Ser	Ser	Thr	Ile	Arg	Pro	Thr	Ala	Ile	Lys	Glu	Gln	Tyr	Thr	Glu	Pro
				165					170					175	
Gly	Ser	Asp	Asp	Ala	Thr	Thr	Gly	Ser	Glu	Trp	Phe	Pro	Lys	Ser	Ile
			180					185					190		
Tyr	Asp	Leu	Asp	Ile	Cys	Ala	Lys	Arg	Val	Ile	Met	Tyr	Gly	Ala	Gly
		195					200					205			
Leu	Asp	Ala	Asp	His	Pro	Gly	Phe	Lys	Asp	Thr	Glu	Tyr	Arg	Gln	Arg
		210				215					220				
Arg	Met	Met	Phe	Ala	Glu	Leu	Ala	Leu	Asn	Tyr	Lys	His	Gly	Glu	Pro
225					230					235					240
Ile	Pro	Arg	Thr	Glu	Tyr	Thr	Ser	Ser	Glu	Arg	Lys	Thr	Trp	Gly	Ile
				245					250					255	
Ile	Tyr	Arg	Lys	Leu	Arg	Glu	Leu	His	Lys	Lys	His	Ala	Cys	Lys	Gln
			260					265					270		
Phe	Leu	Asp	Asn	Phe	Glu	Leu	Leu	Glu	Arg	His	Cys	Gly	Tyr	Ser	Glu
		275				280						285			
Asn	Asn	Ile	Pro	Gln	Leu	Glu	Asp	Ile	Cys	Lys	Phe	Leu	Lys	Ala	Lys
		290				295					300				
Thr	Gly	Phe	Arg	Val	Arg	Pro	Val	Ala	Gly	Tyr	Leu	Ser	Ala	Arg	Asp
305					310					315					320
Phe	Leu	Ala	Gly	Leu	Ala	Tyr	Arg	Val	Phe	Phe	Cys	Thr	Gln	Tyr	Val
				325					330					335	
Arg	His	His	Ala	Asp	Pro	Phe	Tyr	Thr	Pro	Glu	Pro	Asp	Thr	Val	His
			340					345					350		
Glu	Leu	Met	Gly	His	Met	Ala	Leu	Phe	Ala	Asp	Pro	Asp	Phe	Ala	Gln
		355				360						365			
Phe	Ser	Gln	Glu	Ile	Gly	Leu	Ala	Ser	Leu	Gly	Ala	Ser	Glu	Glu	Asp
		370				375					380				
Leu	Lys	Lys	Leu	Ala	Thr	Leu	Tyr	Phe	Phe	Ser	Ile	Glu	Phe	Gly	Leu
385					390					395					400
Ser	Ser	Asp	Asp	Ala	Ala	Asp	Ser	Pro	Val	Lys	Glu	Asn	Gly	Ser	Asn
				405					410					415	
His	Glu	Arg	Phe	Lys	Val	Tyr	Gly	Ala	Gly	Leu	Leu	Ser	Ser	Ala	Gly
				420				425					430		
Glu	Leu	Gln	His	Ala	Val	Glu	Gly	Ser	Ala	Thr	Ile	Ile	Arg	Phe	Asp
		435					440					445			
Pro	Asp	Arg	Val	Val	Glu	Gln	Glu	Cys	Leu	Ile	Thr	Thr	Phe	Gln	Ser
		450				455					460				
Ala	Tyr	Phe	Tyr	Thr	Arg	Asn	Phe	Glu	Glu	Ala	Gln	Gln	Lys	Leu	Arg
465					470					475					480
Met	Phe	Thr	Asn	Asn	Met	Lys	Arg	Pro	Phe	Ile	Val	Arg	Tyr	Asn	Pro
				485					490					495	
Tyr	Thr	Glu	Ser	Val	Glu	Val	Leu	Asn	Asn	Ser	Arg	Ser	Ile	Met	Leu
			500					505					510		
Ala	Val	Asn	Ser	Leu	Arg	Ser	Asp	Ile	Asn	Leu	Leu	Ala	Gly	Ala	Leu
		515					520					525			
His	Tyr	Ile	Leu												
		530													

<210> 314  
 <211> 817  
 <212> DNA

<213> *Caenorhabditis elegans*

<400> 314

attaccaag	tttgaggtag	cattgctctc	ttcaatcata	tggattcggt	gtttcagatg	60
gcatccgcaa	tgaagtttca	atactactcg	aagaaagctg	ctggaaagac	aatgtctaata	120
agtgtcaaaa	actggattcc	gtgttcgccc	agtcgcccga	tacttatcag	ctcgtgattt	180
cttggcaggt	cttgcataatc	gtgtcttctt	ctgcactcaa	tacgttcgcc	atcatgccga	240
tccattttac	actccagaac	cagacaccgt	tcacgagctc	atgggtcaca	tggctctatt	300
cgctgatcca	gattttgctc	agttttctca	agagattgga	ttagcttctc	ttggagcatc	360
agaggaagat	ttgaagaagc	ttgcaacact	ctacttcttt	tccattgaat	ttggctctctc	420
gtctgatgac	gctgccgatt	ctccagtaaa	agaaaatgga	tcaaatacatg	aaagatttaa	480
agtatacgga	gcaggacttc	tgagcagtg	tgccgagttg	caacatgccg	ttgagggtag	540
tgcaaccatt	attcgttttg	atccggatcg	tggtgttgag	caagaatgtc	tcattactac	600
tttccagtc	gcgtatttct	atactagaaa	ttttgaagag	gcccagcaga	aactcagaat	660
gttcaccaac	aacatgaaac	gtcccttcat	tggtcggtac	aaccataca	cagaaagcgt	720
cgaagtctc	aacaactccc	gttccattat	gttggcagtg	aactctctcc	gctcagacat	780
caacctgctc	gccggagctc	tccactacat	cctgtag			817

<210> 315

<211> 45

<212> PRT

<213> *Caenorhabditis elegans*

<400> 315

Met	Asp	Ser	Leu	Phe	Gln	Met	Ala	Ser	Ala	Met	Lys	Phe	Gln	Tyr	Tyr
1				5					10					15	
Ser	Lys	Lys	Ala	Ala	Gly	Lys	Thr	Met	Ser	Asn	Ser	Val	Lys	Asn	Trp
			20					25					30		
Ile	Pro	Cys	Ser	Pro	Ser	Arg	Arg	Ile	Leu	Ile	Ser	Ser			
		35					40					45			

<210> 316

<211> 466

<212> DNA

<213> *Caenorhabditis elegans*

<400> 316

attcggcatg	agcatggagc	ttcagagtcct	agagaacaca	aaacgttccc	ggcggaaacct	60
gggtctggac	tgcgacgaga	ctcaagcgag	tcccgctgct	gccgatatcc	cctcacagtg	120
gactttgagg	ctttcggctg	ggactggatc	atcgcaccta	agcgctacaa	ggccaactac	180
tgctccggcc	agtgggagta	catgttcatg	caaaaatatc	cgcataccca	tttgggtgcag	240
caggccaatc	caagaggtta	tgctgggccc	tggtgtaccc	ccaccaagat	gtccccaatc	300
aacatgctct	acttcaatga	caagcagcag	attatctacg	gcaagatccc	tggcatgggtg	360
gtggatcgct	gtggctgctc	ttaagggtggg	ggatagagga	tgctccccc	acagaccgta	420
ccccaaagacc	catagccctg	cccaatccac	cgctgatcc	aaacat		466

<210> 317

<211> 128

<212> PRT

<213> *Caenorhabditis elegans*

<400> 317

Ile	Arg	His	Glu	His	Gly	Ala	Ser	Ser	Pro	Arg	Glu	His	Lys	Thr	Phe
1				5					10					15	
Pro	Ala	Glu	Pro	Gly	Ser	Gly	Leu	Arg	Arg	Asp	Ser	Ser	Glu	Ser	Arg
			20					25					30		
Cys	Cys	Arg	Tyr	Pro	Leu	Thr	Val	Asp	Phe	Glu	Ala	Phe	Gly	Trp	Asp
		35					40					45			



Trp	Ile	Ile	Ala	Pro	Lys	Arg	Tyr	Lys	Ala	Asn	Tyr	Cys	Ser	Gly	Gln
50						55				60					
Trp	Glu	Tyr	Met	Phe	Met	Gln	Lys	Tyr	Pro	His	Thr	His	Leu	Val	Gln
65					70					75					80
Gln	Ala	Asn	Pro	Arg	Gly	Tyr	Ala	Gly	Pro	Cys	Cys	Thr	Pro	Thr	Lys
			85					90						95	
Met	Ser	Pro	Ile	Asn	Met	Leu	Tyr	Phe	Asn	Asp	Lys	Gln	Gln	Ile	Ile
		100						105					110		
Tyr	Gly	Lys	Ile	Pro	Leu	Ala	Met	Val	Val	Asp	Arg	Cys	Gly	Cys	Ser
	115						120					125			

<210> 318  
 <211> 8  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 6  
 <223> n = c or t

<400> 318  
 caaaanaa

8

<210> 319  
 <211> 20  
 <212> DNA  
 <213> Caenorhabditis elegans

<400> 319  
 ccactatggc cgagatttcc

20

<210> 320  
 <211> 44  
 <212> DNA  
 <213> Caenorhabditis elegans

<400> 320  
 ccagtgaaaa gttctttctcc tttctttctc ttctcgaatt cgga

44

<210> 321  
 <211> 21  
 <212> DNA  
 <213> Caenorhabditis elegans

<400> 321  
 cttcctcttc tcgaattcgg c

21

<210> 322  
 <211> 8  
 <212> PRT  
 <213> Caenorhabditis elegans

<400> 322  
 Gly Arg Lys Gly Phe Pro His Val  
 1 5

<210> 323  
 <211> 7  
 <212> PRT  
 <213> Caenorhabditis elegans

<220>  
 <221> VARIANT  
 <222> (1)...(7)  
 <223> Xaa = Any Amino Acid

<400> 323  
 Arg Xaa Xaa Ile Xaa Xaa Gly  
 1 5

<210> 324  
 <211> 7  
 <212> PRT  
 <213> Caenorhabditis elegans or Homo sapiens

<400> 324  
 Cys Gly Cys Cys Cys Cys Cys  
 1 5

<210> 325  
 <211> 79  
 <212> PRT  
 <213> Homo sapiens or Caenorhabditis elegans

<400> 325  
 Val Leu Asp Asp Tyr Gly Arg Val Asp Trp Trp Gly Gly Val Val Met  
 1 5 10 15  
 Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asp His Lys Leu Phe  
 20 25 30  
 Glu Leu Ile Arg Phe Pro Leu Glu Ala Leu Leu Gly Leu Leu Lys Asp  
 35 40 45  
 Pro Thr Gln Arg Leu Gly Gly Gly Glu Asp Ala Glu Ile Phe Phe Trp  
 50 55 60  
 Tyr Lys Pro Pro Lys Pro Val Ser Glu Thr Asp Thr Tyr Phe Asp  
 65 70 75

<210> 326  
 <211> 48  
 <212> PRT  
 <213> Homo sapiens or Caenorhabditis elegans

<400> 326  
 Thr Met Phe Leu Lys Leu Gly Lys Gly Thr Phe Gly Lys Val Ile Leu  
 1 5 10 15  
 Lys Glu Lys Thr Tyr Ala Lys Ile Leu Lys Lys Val Ile Ala Glu Val  
 20 25 30  
 Ala His Thr Leu Thr Glu Asn Arg Val Leu Gln His Pro Phe Leu Thr  
 35 40 45

<210> 327  
 <211> 27

<212> DNA

<213> *Caenorhabditis elegans*

<400> 327

caagcgttga ctcaaataaa tcacaaa

27

<210> 328

<211> 55

<212> DNA

<213> *Caenorhabditis elegans*

<400> 328

caagcgttga ctcaatgcgt tgactcaatg cgttgactcg ttgacgaatc caaaa

55

<210> 329

<211> 530

<212> PRT

<213> *C. elegans*

<400> 329

Met	Asn	Asp	Ser	Ile	Asp	Asp	Asp	Phe	Pro	Pro	Glu	Pro	Arg	Gly	Arg
1				5				10						15	
Cys	Tyr	Thr	Trp	Pro	Met	Gln	Gln	Tyr	Ile	Tyr	Gln	Glu	Ser	Ser	Ala
			20					25					30		
Thr	Ile	Pro	His	His	His	Leu	Asn	Gln	His	Asn	Asn	Pro	Tyr	His	Pro
		35					40					45			
Met	His	Pro	His	His	Gln	Leu	Pro	His	Met	Gln	Gln	Leu	Pro	Gln	Pro
	50					55					60				
Leu	Leu	Asn	Leu	Asn	Met	Thr	Thr	Leu	Thr	Ser	Ser	Gly	Ser	Ser	Val
65					70					75					80
Ala	Ser	Ser	Ile	Gly	Gly	Gly	Ala	Gln	Cys	Ser	Pro	Cys	Ala	Ser	Gly
			85					90					95		
Ser	Ser	Thr	Ala	Ala	Thr	Asn	Ser	Ser	Gln	Gln	Gln	Gln	Thr	Val	Gly
		100					105						110		
Gln	Met	Leu	Ala	Ala	Ser	Val	Pro	Cys	Ser	Ser	Ser	Gly	Met	Thr	Leu
		115					120					125			
Gly	Met	Ser	Leu	Asn	Leu	Ser	Gln	Gly	Gly	Gly	Pro	Met	Pro	Ala	Lys
	130					135					140				
Lys	Lys	Arg	Cys	Arg	Lys	Lys	Pro	Thr	Asp	Gln	Leu	Ala	Gln	Lys	Lys
145					150					155					160
Pro	Asn	Pro	Trp	Gly	Glu	Glu	Ser	Tyr	Ser	Asp	Ile	Ile	Ala	Lys	Ala
			165						170					175	
Leu	Glu	Ser	Ala	Pro	Asp	Gly	Arg	Leu	Lys	Leu	Asn	Glu	Ile	Tyr	Gln
		180					185					190			
Trp	Phe	Ser	Asp	Asn	Ile	Pro	Tyr	Phe	Gly	Glu	Arg	Ser	Ser	Pro	Glu
		195				200						205			
Glu	Ala	Ala	Gly	Trp	Lys	Asn	Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	His
	210					215					220				
Ser	Arg	Phe	Met	Arg	Ile	Gln	Asn	Glu	Gly	Ala	Gly	Lys	Ser	Ser	Trp
225				230						235					240
Trp	Val	Ile	Asn	Pro	Asp	Ala	Lys	Pro	Gly	Arg	Asn	Pro	Arg	Arg	Thr
			245						250					255	
Arg	Glu	Arg	Ser	Asn	Thr	Ile	Glu	Thr	Thr	Lys	Ala	Gln	Leu	Glu	
		260					265					270			
Lys	Ser	Arg	Arg	Gly	Ala	Lys	Lys	Arg	Ile	Lys	Glu	Arg	Ala	Leu	Met
		275					280					285			
Gly	Ser	Leu	His	Ser	Thr	Leu	Asn	Gly	Asn	Ser	Ile	Ala	Gly	Ser	Ile
	290					295					300				
Gln	Thr	Ile	Ser	His	Asp	Leu	Tyr	Asp	Asp	Asp	Ser	Met	Gln	Gly	Ala

305					310					315				320
Phe	Asp	Asn	Val	Pro	Ser	Ser	Phe	Arg	Pro	Arg	Thr	Gln	Ser	Asn
				325					330					335
Ser	Ile	Pro	Gly	Ser	Ser	Ser	Arg	Val	Ser	Pro	Ala	Ile	Gly	Ser
			340					345					350	
Ile	Tyr	Asp	Asp	Leu	Glu	Phe	Pro	Ser	Trp	Val	Gly	Glu	Ser	Val
		355					360					365		
Ala	Ile	Pro	Ser	Asp	Ile	Val	Asp	Arg	Thr	Asp	Gln	Met	Arg	Ile
	370					375					380			
Ala	Thr	Thr	His	Ile	Gly	Gly	Val	Gln	Ile	Lys	Gln	Glu	Ser	Lys
385					390					395				400
Ile	Lys	Thr	Glu	Pro	Ile	Ala	Pro	Pro	Pro	Ser	Tyr	His	Glu	Leu
				405					410					415
Ser	Val	Arg	Gly	Ser	Cys	Ala	Gln	Asn	Pro	Leu	Leu	Arg	Asn	Pro
			420					425					430	
Val	Pro	Ser	Thr	Asn	Phe	Lys	Pro	Met	Pro	Leu	Pro	Gly	Ala	Tyr
		435					440					445		
Asn	Tyr	Gln	Asn	Gly	Gly	Ile	Thr	Pro	Ile	Asn	Trp	Leu	Ser	Thr
	450					455					460			
Asn	Ser	Ser	Pro	Leu	Pro	Gly	Ile	Gln	Ser	Cys	Gly	Ile	Val	Ala
465					470					475				480
Gln	His	Thr	Val	Ala	Ser	Ser	Ser	Ala	Leu	Pro	Ile	Asp	Leu	Glu
				485					490					495
Leu	Thr	Leu	Pro	Asp	Gln	Pro	Leu	Met	Asp	Thr	Met	Asp	Val	Asp
			500				505						510	
Leu	Ile	Arg	His	Glu	Leu	Ser	Gln	Ala	Gly	Gly	Gln	His	Ile	His
		515					520					525		
Asp	Leu													
	530													

<210> 330  
 <211> 673  
 <212> PRT  
 <213> Homo sapiens

<400> 330

Met	Ala	Glu	Ala	Pro	Ala	Ser	Pro	Ala	Pro	Leu	Ser	Pro	Leu	Glu	Val
1				5					10					15	
Glu	Leu	Asp	Pro	Glu	Phe	Glu	Pro	Gln	Ser	Arg	Pro	Arg	Ser	Cys	Thr
			20					25					30		
Trp	Pro	Leu	Gln	Arg	Pro	Glu	Leu	Gln	Ala	Ser	Pro	Ala	Lys	Pro	Ser
		35					40					45			
Gly	Glu	Thr	Ala	Ala	Asp	Ser	Met	Ile	Pro	Glu	Glu	Glu	Asp	Asp	Glu
	50					55					60				
Asp	Asp	Glu	Asp	Gly	Gly	Gly	Arg	Ala	Gly	Ser	Ala	Met	Ala	Ile	Gly
65					70					75				80	
Gly	Gly	Gly	Gly	Ser	Gly	Thr	Leu	Gly	Ser	Gly	Leu	Leu	Leu	Glu	Asp
				85					90					95	
Ser	Ala	Arg	Val	Leu	Ala	Pro	Gly	Gly	Gln	Asp	Pro	Gly	Ser	Gly	Pro
			100					105					110		
Ala	Thr	Ala	Ala	Gly	Gly	Leu	Ser	Gly	Gly	Thr	Gln	Ala	Leu	Leu	Gln
		115					120					125			
Pro	Gln	Gln	Pro	Leu	Pro	Pro	Pro	Gln	Pro	Gly	Ala	Ala	Gly	Gly	Ser
	130					135					140				
Gly	Gln	Pro	Arg	Lys	Cys	Ser	Ser	Arg	Arg	Asn	Ala	Trp	Gly	Asn	Leu
145					150					155				160	
Ser	Tyr	Ala	Asp	Leu	Ile	Thr	Arg	Ala	Ile	Glu	Ser	Ser	Pro	Asp	Lys
				165					170					175	

Arg	Leu	Thr	Leu	Ser	Gln	Ile	Tyr	Glu	Trp	Met	Val	Arg	Cys	Val	Pro
			180					185					190		
Tyr	Phe	Lys	Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala	Gly	Trp	Lys	Asn
		195					200					205			
Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	His	Ser	Arg	Phe	Met	Arg	Val	Gln
	210					215					220				
Asn	Glu	Gly	Thr	Gly	Lys	Ser	Ser	Trp	Trp	Ile	Ile	Asn	Pro	Asp	Gly
225					230					235					240
Gly	Lys	Ser	Gly	Lys	Ala	Pro	Arg	Arg	Arg	Ala	Val	Ser	Met	Asp	Asn
				245				250						255	
Ser	Asn	Lys	Tyr	Thr	Lys	Ser	Arg	Gly	Arg	Ala	Ala	Lys	Lys	Lys	Ala
			260					265					270		
Ala	Leu	Gln	Thr	Ala	Pro	Glu	Ser	Ala	Asp	Asp	Ser	Pro	Ser	Gln	Leu
			275				280					285			
Ser	Lys	Trp	Pro	Gly	Ser	Pro	Thr	Ser	Arg	Ser	Ser	Asp	Glu	Leu	Asp
	290					295					300				
Ala	Trp	Thr	Asp	Phe	Arg	Ser	Arg	Thr	Asn	Ser	Asn	Ala	Ser	Thr	Val
305					310					315					320
Ser	Gly	Arg	Leu	Ser	Pro	Ile	Met	Ala	Ser	Thr	Glu	Leu	Asp	Glu	Val
				325					330					335	
Gln	Asp	Asp	Asp	Ala	Pro	Leu	Ser	Pro	Met	Leu	Tyr	Ser	Ser	Ser	Ala
			340					345					350		
Ser	Leu	Ser	Pro	Ser	Val	Ser	Lys	Pro	Cys	Thr	Val	Glu	Leu	Pro	Arg
	355						360					365			
Leu	Thr	Asp	Met	Ala	Gly	Thr	Met	Asn	Leu	Asn	Asp	Gly	Leu	Thr	Glu
	370					375					380				
Asn	Leu	Met	Asp	Asp	Leu	Leu	Asp	Asn	Ile	Thr	Leu	Pro	Pro	Ser	Gln
385					390					395					400
Pro	Ser	Pro	Thr	Gly	Gly	Leu	Met	Gln	Arg	Ser	Ser	Ser	Phe	Pro	Tyr
				405					410					415	
Thr	Thr	Lys	Gly	Ser	Gly	Leu	Gly	Ser	Pro	Thr	Ser	Ser	Phe	Asn	Ser
			420					425					430		
Thr	Val	Phe	Gly	Pro	Ser	Ser	Leu	Asn	Ser	Leu	Arg	Gln	Ser	Pro	Met
		435					440					445			
Gln	Thr	Ile	Gln	Glu	Asn	Lys	Pro	Ala	Thr	Phe	Ser	Ser	Met	Ser	His
	450					455					460				
Tyr	Gly	Asn	Gln	Thr	Leu	Gln	Asp	Leu	Leu	Thr	Ser	Asp	Ser	Leu	Ser
465					470					475					480
His	Ser	Asp	Val	Met	Met	Thr	Gln	Ser	Asp	Pro	Leu	Met	Ser	Gln	Ala
				485					490					495	
Ser	Thr	Ala	Val	Ser	Ala	Gln	Asn	Ser	Arg	Arg	Asn	Val	Met	Leu	Arg
			500					505					510		
Asn	Asp	Pro	Met	Met	Ser	Phe	Ala	Gln	Pro	Asn	Gln	Gly	Ser	Leu	
		515					520				525				
Val	Asn	Gln	Asn	Leu	Leu	His	His	Gln	His	Gln	Thr	Gln	Gly	Ala	Leu
	530					535					540				
Gly	Gly	Ser	Arg	Ala	Leu	Ser	Asn	Ser	Val	Ser	Asn	Met	Gly	Leu	Ser
545					550					555					560
Glu	Ser	Ser	Ser	Leu	Gly	Ser	Ala	Lys	His	Gln	Gln	Gln	Ser	Pro	Val
				565					570					575	
Ser	Gln	Ser	Met	Gln	Thr	Leu	Ser	Asp	Ser	Leu	Ser	Gly	Ser	Ser	Leu
			580					585					590		
Tyr	Ser	Thr	Ser	Ala	Asn	Leu	Pro	Val	Met	Gly	His	Glu	Lys	Phe	Pro
		595					600					605			
Ser	Asp	Leu	Asp	Leu	Asp	Met	Phe	Asn	Gly	Ser	Leu	Glu	Cys	Asp	Met
	610					615					620				
Glu	Ser	Ile	Ile	Arg	Ser	Glu	Leu	Met	Asp	Ala	Asp	Gly	Leu	Asp	Phe
625					630					635					640
Asn	Phe	Asp	Ser	Leu	Ile	Ser	Thr	Gln	Asn	Val	Val	Gly	Leu	Asn	Val

				645				650					655
Gly	Asn	Phe	Thr	Gly	Ala	Lys	Gln	Ala	Ser	Ser	Gln	Ser	Trp
				660				665					670
Gly													Val
													Pro

<210> 331  
 <211> 501  
 <212> PRT  
 <213> Homo sapiens

<400> 331

Met	Arg	Ile	Gln	Pro	Gln	Lys	Ala	Ala	Ala	Ile	Ile	Asp	Leu	Asp	Pro
1				5					10					15	
Asp	Phe	Glu	Pro	Gln	Ser	Arg	Pro	Arg	Ser	Cys	Thr	Trp	Pro	Leu	Pro
			20					25					30		
Arg	Pro	Glu	Ile	Ala	Asn	Gln	Pro	Ser	Glu	Pro	Pro	Glu	Val	Glu	Pro
		35					40					45			
Asp	Leu	Gly	Glu	Lys	Val	His	Thr	Glu	Gly	Arg	Ser	Glu	Pro	Ile	Leu
	50					55				60					
Leu	Pro	Ser	Arg	Leu	Ser	Glu	Pro	Ala	Gly	Gly	Pro	Gln	Pro	Gly	Ile
65					70				75					80	
Leu	Gly	Ala	Val	Thr	Gly	Pro	Arg	Lys	Gly	Gly	Ser	Arg	Arg	Asn	Ala
			85						90					95	
Trp	Gly	Asn	Gln	Ser	Tyr	Ala	Glu	Phe	Ile	Ser	Gln	Ala	Ile	Glu	Ser
			100					105					110		
Ala	Pro	Glu	Lys	Arg	Leu	Thr	Leu	Ala	Gln	Ile	Tyr	Glu	Trp	Met	Val
		115					120					125			
Arg	Thr	Val	Pro	Tyr	Phe	Lys	Asp	Lys	Gly	Asp	Ser	Asn	Ser	Ser	Ala
	130					135				140					
Gly	Trp	Lys	Asn	Ser	Ile	Arg	His	Asn	Leu	Ser	Leu	His	Ser	Lys	Phe
145					150					155					160
Ile	Lys	Val	His	Asn	Glu	Ala	Thr	Gly	Lys	Ser	Ser	Trp	Trp	Met	Leu
			165					170						175	
Asn	Pro	Glu	Gly	Gly	Lys	Ser	Gly	Lys	Ala	Pro	Arg	Arg	Arg	Ala	Ala
		180						185					190		
Ser	Met	Asp	Ser	Ser	Ser	Lys	Leu	Leu	Arg	Gly	Arg	Ser	Lys	Ala	Pro
	195						200					205			
Lys	Lys	Lys	Pro	Ser	Val	Leu	Pro	Ala	Pro	Pro	Glu	Gly	Ala	Thr	Pro
	210					215					220				
Thr	Ser	Pro	Val	Gly	His	Phe	Ala	Lys	Trp	Ser	Gly	Ser	Pro	Cys	Ser
225					230					235				240	
Arg	Asn	Arg	Glu	Glu	Ala	Asp	Met	Trp	Thr	Thr	Phe	Arg	Pro	Arg	Ser
			245						250					255	
Ser	Ser	Asn	Ala	Ser	Ser	Val	Ser	Thr	Arg	Leu	Ser	Pro	Leu	Arg	Pro
		260						265					270		
Glu	Ser	Glu	Val	Leu	Ala	Glu	Glu	Ile	Pro	Ala	Ser	Val	Ser	Ser	Tyr
	275						280					285			
Ala	Gly	Gly	Val	Pro	Pro	Thr	Leu	Asn	Glu	Gly	Leu	Glu	Leu	Leu	Asp
	290					295					300				
Gly	Leu	Asn	Leu	Thr	Ser	Ser	His	Ser	Leu	Leu	Ser	Arg	Ser	Gly	Leu
305					310					315				320	
Ser	Gly	Phe	Ser	Leu	Gln	His	Pro	Gly	Val	Thr	Gly	Pro	Leu	His	Thr
			325						330					335	
Tyr	Ser	Ser	Ser	Leu	Phe	Ser	Pro	Ala	Glu	Gly	Pro	Leu	Ser	Ala	Gly
		340						345					350		
Glu	Gly	Cys	Phe	Ser	Ser	Ser	Gln	Ala	Leu	Glu	Ala	Leu	Leu	Thr	Ser
		355					360					365			

Asp	Thr	Pro	Pro	Pro	Pro	Ala	Asp	Val	Leu	Met	Thr	Gln	Val	Asp	Pro
370						375					380				
Ile	Leu	Ser	Gln	Ala	Pro	Thr	Leu	Leu	Leu	Leu	Gly	Gly	Leu	Pro	Ser
385					390					395					400
Ser	Ser	Lys	Leu	Ala	Thr	Gly	Val	Gly	Leu	Cys	Pro	Lys	Pro	Leu	Glu
				405					410					415	
Ala	Arg	Gly	Pro	Ser	Ser	Leu	Val	Pro	Thr	Leu	Ser	Met	Ile	Ala	Pro
			420					425					430		
Pro	Pro	Val	Met	Ala	Ser	Ala	Pro	Ile	Pro	Lys	Ala	Leu	Gly	Thr	Pro
		435					440					445			
Val	Leu	Thr	Pro	Pro	Thr	Glu	Ala	Ala	Ser	Gln	Asp	Arg	Met	Pro	Gln
450						455					460				
Asp	Leu	Asp	Leu	Asp	Met	Tyr	Met	Glu	Asn	Leu	Glu	Cys	Asp	Met	Asp
465					470					475					480
Asn	Ile	Ile	Ser	Asp	Leu	Met	Asp	Glu	Gly	Glu	Gly	Leu	Asp	Phe	Asn
				485					490					495	
Phe	Glu	Pro	Asp	Pro											
			500												